

LIFE AFTER SERVICE:

SOLUTIONS TO COMMON CHALLENGES

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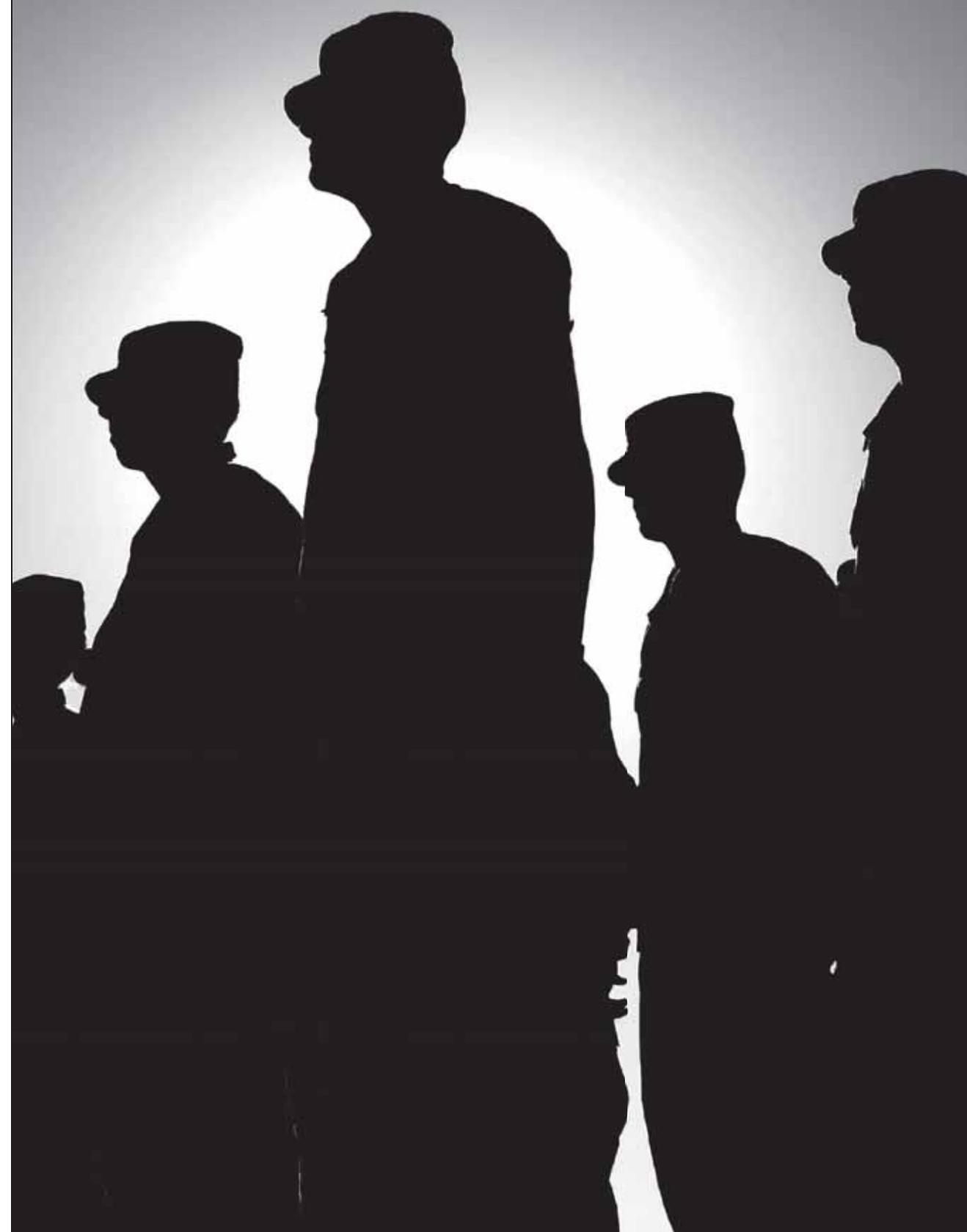
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Introduction

To facilitate your reentry into civilian life, the Department of Defense and Department of Labor offer the Transition Assistance Program (TAP) to help you become a “career ready” civilian. However, many service members also want information on additional things they can do for themselves to enhance quality of life. This is because there is, of course, more to life than work. This document highlights four key topics for self-navigation, particularly if your military service involved combat deployments. However, these four topics are foundations to well-being even if you never deployed to combat.

We are referring to:

1. Social Ties
2. Anger
3. Pain
4. Sleep

We know that these topics are important because we administered surveys to thousands of Marines and Sailors during TAP classes across the country. Many of these same Marines and Sailors allowed us to follow up with them for a second survey after they left the military. On the follow-up survey, we asked our new veterans a number of things, including how happy they were, how much stress their families were under, and how difficult it was for them to readjust back to civilian life. Fortunately, the majority of our survey takers had few significant problems as veterans, although minor issues were common.

However, almost 20% reported a lot of difficulty transitioning into civilian life. As you might expect, those with heavy combat exposure and post-traumatic stress disorder (PTSD) symptoms reported more challenges after leaving the military. We urge individuals experiencing combat stress symptoms such as PTSD, depression, or substance abuse to seek appropriate care from either the DOD or the VA.

Our surveys also revealed that a number of additional issues interfered with good transitions to civilian life. Because these other issues may seem minor compared with things like PTSD, it is easy to ignore them. Easy, but also mistaken. That’s because each of the four topics we highlight has proven importance to veterans. In fact, we can safely say that if:

1. Your social ties are strong
2. Your anger is rare and under control
3. Your pain from injuries is understood and well-managed
4. Your sleep is adequate

Then your well-being as a new veteran is almost a certainty.

We hope you find this tool helpful in your transition, and that this will be the beginning of a great chapter in your life.

CHAPTER 1

SOCIAL TIES

Blog posts from former service members:

“Although I have more friends now, they are more drinking buddies that I couldn’t depend on in a pinch, unlike those I served with. I really miss being around a group of guys that had my back no matter what ... I don’t think you can find friends in the civilian world like those you serve with. I miss those guys.”

“I didn’t spend that much time in the military— BUT— what I think most civilians don’t get— that most military people do— is that REAL close— and I’m not even sure if “friendship” is the right word. But the knowing that (at least when I was in) if push came to shove— all/most of these people around you would give their life to save yours. I guess our training instilled that (for me anyway) in us. Not that I’ve “missed” that feeling in civilian life, but that type of closeness just doesn’t exist for most civilians— maybe cops, fireman, etc. get it— and you really can’t explain it.”

INTRODUCTION

In a television commercial for the organization “Iraq Afghanistan Veterans of America,” a returning service member arrives at an empty airport, gathers his things, and walks into a completely vacant American city. This eerie scene continues until an unknown veteran suddenly walks up to offer a handshake, saying “Welcome home.” With that greeting, the dead city fills with people and life.

The commercial is meant to show that veterans returning to civilian life might feel isolated unless they maintain relationships with others who have similar experiences. And in fact, the issue is real—when you leave the military you may feel like you are no longer part of a community. That’s because a majority of Americans don’t realize the challenges you may have faced in the military. They appreciate your “service” and “sacrifice,” but deep down something separates you from most civilians.

The purpose of this chapter is to discuss the importance of maintaining strong social ties, both with other veterans (your old community), and with civilians (your new community). Yes, we’re going to encourage you to get to know many people who may not even “get you” in return. That’s because social relationships provide many benefits beyond feeling understood. We’ll talk about why this issue is important and present some strategies for staying connected with others.





DID YOU KNOW?

Researchers at the Naval Health Research Center (NHRC) surveyed thousands of former Marines and Sailors in recent years to determine who readjusts well to civilian life. One thing is clear: the quality of social ties is strongly associated with ease of transitioning from active duty to civilian life, and it is strongly tied to happiness in recent veterans. The graphs below show the strength of these relationships.

SINCE LEAVING THE MILITARY, HOW MUCH TROUBLE HAVE YOU HAD READJUSTING TO CIVILIAN LIFE?



HOW OFTEN DO YOU ENJOY LIFE?



HIGHER SOCIAL SUPPORT SCORES = ENJOYMENT OF LIFE

POST-SEPARATION SOCIAL TIES

For many veterans, some of the best memories from military life are about the people they served with. The close bond that military members develop with each other is sometimes called “unit cohesion.” In general, cohesive units are more resilient under stress. While the demands of civilian life are far different from what you experienced in the military, social cohesion remains important. According to psychologist Dr. Roy Baumeister, “the need to belong” is a fundamental part of our existence, and strong and stable interpersonal relationships support our sense of belonging. On the flip side, a lack of connections to other people is linked to a variety of ill effects on health, adjustment, and well-being.

WHAT ARE SOME SPECIFIC PROBLEMS EXPERIENCED BY ISOLATED INDIVIDUALS?

Lack of practical support

If someone loans you money, gives you a ride to the airport, or helps you with child care, he or she is providing you with practical support. When you help someone move their furniture to a new residence or collect their mail when they are away, then you are the one providing practical support. Ideally, this kind of support works both ways. Let’s face it, many things in life are hard to accomplish alone.

Lack of information

We often rely on others for advice, guidance, or useful information. Most people find it very helpful to have friends or family members to consult with when they need practical information on a particular situation or topic. For example, you may seek out a friend who has bought a house for information on the process of home buying. Friends can help us figure out everything from how to use software to where to find an honest car repair shop. Informational support often helps people engage in better problem solving.



Lack of companionship

We all enjoy having buddies to share activities with, such as meals, movies, or sports. Ask yourself the question, “Who do I spend my free time with?” The people who come to mind are your sources of companionship. Scientists have found that having just one person to rely on for company makes a large difference in our mental and physical health. Compared with the other types of social support, companionship seems to be the most important for reducing feelings of loneliness and increasing our sense of belonging. Also, activities with other people provide a welcome escape from the problems of daily life.

Lack of emotional support

Emotional support involves concern, acceptance, and encouragement. For example, let’s say that you are going through a difficult time in your life, and a friend or family member contacts you periodically to ask you how you are doing, and to listen to your concerns—that person is providing you with emotional support. And, you provide emotional support when you cheer up a friend who has experienced a disappointment. This kind of support involves trust. We don’t discuss problems and reveal private thoughts to others unless we trust them. Emotional support is the most personal type of social support, and there is evidence that it is strongly linked to physical and mental well-being.

CASE STUDY: LESSONS FROM A SMALL TOWN

The following is from the article, “A Thought for Veterans Day: Isolation Kills and Community Heals” by Joseph Bobrow, Founder and President, Coming Home Project.

“Let me tell you a story from the book, Outliers: In the 1950’s a physician discovered a small town in eastern Pennsylvania where there was no heart disease under age 65, no suicide, alcoholism, drug addiction, peptic ulcers, and very little crime. People died from old age. Researchers conducted a thorough study and found that the usual suspects — diet, exercise, genetics and location — were not at play. Then they began to notice how the town folk interacted: how they visited with one another, stopping to chat on the street, how they cooked for each other in their backyards, and shared three-generation meals. They learned about the extended family clans underlying the town’s social structure. They observed the egalitarian ethos of the community, which helped everyone feel safe and connected.

Townpeople were healthy because they had created for themselves a powerful, protective social structure capable of inoculating them from the pressures of the modern world. The message is: to understand the secrets of health we have to look beyond the individual in isolation and understand the culture that he or she is part of. How much help can such an approach be with our vets returning home from the nation’s wars?”

YOUR SOCIAL SUPPORT PROFILE

How positively or negatively we view our social support may depend on who in our network is offering a particular type of support. For example, we may be grateful for practical support from our parents (e.g., money to buy a new car; babysitting our children), but we may not appreciate their “informational support,” or advice. Or, you may have a friend who you rely on for emotional support, but not for practical help. Typically, each member of your social network does not provide all four types of social support.

Instructions: Clarify your network of social support by completing the following social support profile. For each type of support listed below, write the initials of the people who provide that type of support to you. Only list people if you are confident they fit the role.

TYPE OF SUPPORT	PRACTICAL: SOMEONE WHO WILL HELP YOU OUT IN A PINCH	INFORMATIONAL: SOMEONE YOU CAN ASK FOR ADVICE ON MAJOR DECISIONS	COMPANIONSHIP: SOMEONE WITH WHOM YOU CAN HANG OUT AND SPEND TIME	EMOTIONAL: SOMEONE YOU CAN TRUST WITH YOUR PRIVATE THOUGHTS AND FEARS
PARTNER/SPOUSE				
RELATIVE				
FRIEND				
COWORKER/BOSS				
NEIGHBOR				
OTHER				

After you fill out this profile, take a look at which types of support have gaps. If you listed two or more people under each of the four categories of support, your social support is probably adequate. If you have listed one or zero individuals for any of the categories, you may want to take steps to increase your social support network, keeping in mind the types of social support you may be lacking.

DID YOU KNOW?

Social rejection and physical pain activate similar parts of the brain, suggesting that, from a neurological perspective, emotional pain has a lot more in common with physical pain than it does with other emotions. The sense of being “hurt” is present in both cases. This may help to explain the fact that injections of Tylenol have actually been shown to ease symptoms of depression.



SOCIAL NORMS IN THE CIVILIAN WORKFORCE

After serving in the military, adjusting to civilian work can bring surprising challenges. For example, in the military you're typically addressed by your rank. But don't be surprised if, in a civilian job, people junior to you call you by your first name. This might seem disrespectful, but you have to remember that you're now part of a different culture. And the reverse is also true; if you respond “yes sir” and “no sir” to questions from your boss, you might come across as too formal or even distant.

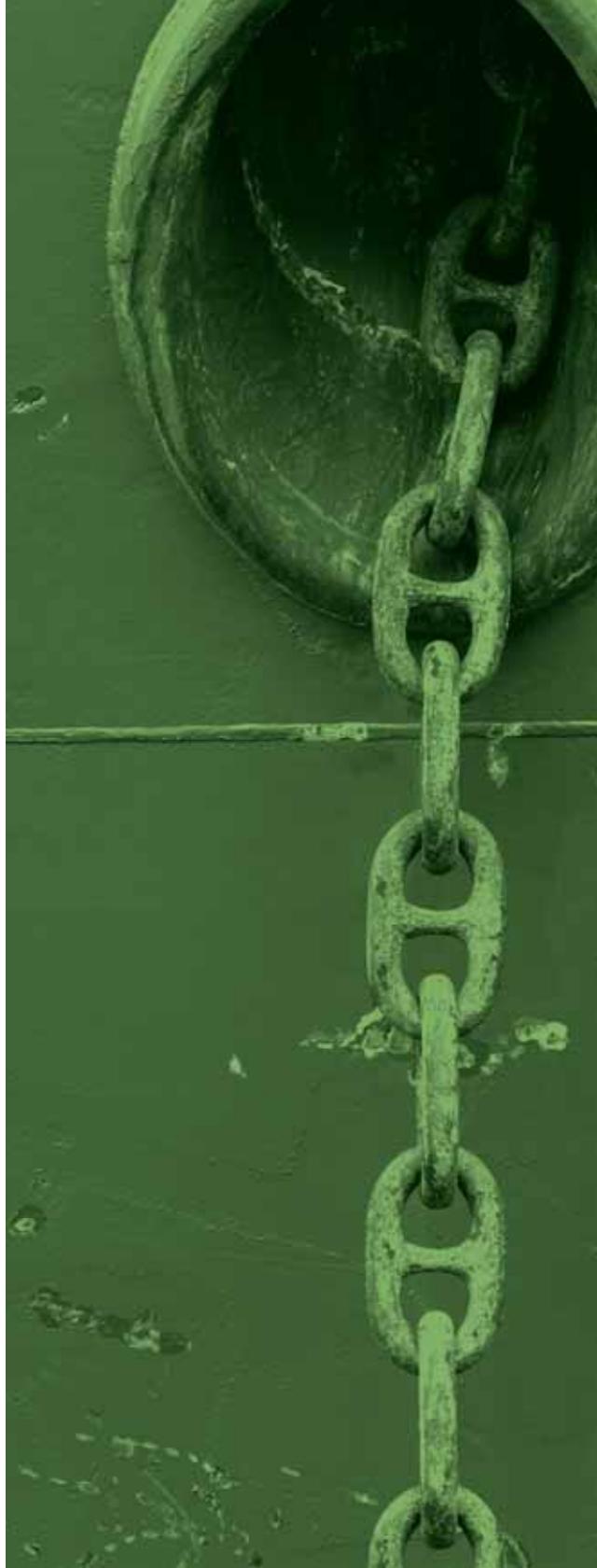
Other potential challenges include having to excessively share decision-making and deal with ambiguous roles. Fitting in socially is an important part of being successful in a civilian job, and you may need time to understand the workplace and what's considered normal. If there are other ex-military people in the same company, you might want to seek their perspective and see if they'll advise you. For example, military life has probably taught you that cooperation is key, but are you now in a place where competition matters more than cooperation? Clearly there is much to learn.

With a little effort you can find numerous Internet tips for readjusting to civilian life, including information posted by the Real Warriors Program: realwarriors.net/veterans/treatment/workplacestress.php.

SOCIAL ISOLATION IN AMERICA

Some experts believe that increasing numbers of Americans are becoming socially isolated. At the start of the 20th century, families were typically larger and more stable, divorce was rare, and few people lived by themselves. Today, a larger percentage of our country's population lives alone than at any previous time. Careers, educational goals, and other things pull us away from our families and the places where we grew up. Stable, long-term relationships with friends, neighbors, and older relatives are increasingly rare, and we are therefore less buffered by social support and close connections.

In a 2006 survey by researchers at the University of Arizona, a representative sample of Americans was asked how many people they would feel comfortable discussing a personal issue with—this is the number of “confidants” that people have. Between 1985 and 2004, the average number of confidants dropped from three to two people. Also, the percentage of people who reported having no confidants rose from 10% to 25%. In another study, scientists asked a random sample of Americans two questions: “Who do you discuss important matters with?” and “Who do you spend your free time with?” Responses to both questions were added up for a total number of “close social contacts.” Ultimately, 12% of Americans listed no one with whom they could discuss important matters or spend free time.



PETS AND SOCIAL SUPPORT

Pet owners generally experience greater well-being, less depression, and less loneliness than people who do not have pets. People seem to benefit from both human and pet sources of social support. In other words, the average person does not rely on pets at the expense of human relationships. Instead, pets “make our families bigger.” For example, surveys conducted by the Associated Press have found that half of pet owners think that their pet is as much a part of the family as any other household member. Perhaps with good reason, since one study found that pet owners received as much social support from their pets as they did from family members. And recent research shows that when required to perform a stressful task, people experienced less stress and lower heart rates and blood pressure when their pets were with them than when a supportive friend or a spouse was with them.

Pet ownership has substantial positive effects on physical health. One study of stockbrokers with high blood pressure found that those who owned pets experienced half the blood pressure increase under stress as those without pets. When they heard the results, many of the stockbrokers in the study who did not have pets went out and got them.

There is evidence that simply petting an animal lowers both blood pressure and heart rate. According to the Centers for Disease and Prevention, having a pet is associated with lower cholesterol and triglyceride levels, which is a sign of good health.

Pets may particularly benefit people facing significant life stressors or physical challenges and those who face limited social contact due to some less-than-ideal life circumstance. For example, individuals with physical problems that reduce their mobility may substantially benefit from pet companionship.

This does not mean that everyone should get a pet. Pet ownership is a very personal decision. Owning a pet clearly involves a great deal of responsibility, additional work, money, and a time commitment. Also, having a pet can bring its own stresses, especially if the pet has health problems or behavior problems. However, pets do provide additional social support for many people.

PERCEPTION VERSUS REALITY

One important component of support is your perception of it—how you feel about your social resources. Two people could have the same number of friends, but one person might feel connected and the other person might feel alone. In fact, a 1986 research study found that the number of actual social connections and frequency of social contact account for less than a third of how we view our social support. The remainder of our perception is affected by things like our personalities and the judgments we form about others. Therefore, it is important to be open-minded about people and give them the benefit of the doubt. For example, we are often asked “How are you?” or “How have you been?” It’s easy to think that such questions are simply automatic greetings, like “Hello,” but sometimes the question is sincere and people are asking because they’re interested.



EXPANDING YOUR SOCIAL CONNECTIONS

Not every service member leaving active duty experiences disrupted social connections. But in some cases, the change is substantial. For example, let's say that in preparing to separate you've lined up a job in a new town, a place where you don't know anyone. When you move there you may feel pretty isolated in the beginning, especially if you're unmarried. Most people would want to start making friends so that life is fun and includes good activities.

Here is some general advice on putting down some roots and building a social circle that you can enjoy. But first, remember to be patient. Making new friends can take time. You may need to meet many new people in order to make just one or two new friends.

ACTIONS THAT BUILD YOUR SOCIAL CIRCLE

Volunteer

Many veterans find public service gratifying, and gravitate toward "helping" occupations such as fire-fighting and police work. But no matter what occupation you choose, you can always find a way to serve through volunteer work. Many organizations now offer volunteer opportunities for veterans. Examples are "The Mission Continues" (missioncontinues.org), the Buddy-to-Buddy program (buddytobuddy.org), and others. When volunteering, you will find yourself with a group of people who share at least one interest with you; this will make it easier to connect. Nonprofit and charitable organizations of all types depend on volunteers for their survival. Websites like volunteermatch.org can help you locate volunteer opportunities.

Join a group

Join an organization or group of people with whom you have a common interest. Options include physical activities like sports, biking clubs, or a gym, or other endeavors like community involvement or church activities. An added advantage to making friends through groups is meeting multiple people at the same time. Starting with a common interest or activity also makes conversation easier. The website meetup.com offers many opportunities for joining a group.

Take a community college class

Consider signing up for a class that interests you. A side benefit is that student conversations about the course material or teacher come naturally. There may be group projects, and there are certainly many opportunities to chat.

Break up your routine

If you switch up the time that you go to the gym, walk your dog, stop at a coffee shop, and other activities, it's likely that you'll also run into a whole new set of people. It's also possible that you may meet more individuals with whom you have things in common.

Talk to your neighbors

According to a 2010 survey by Pew Research Center, more than a quarter of American adults (28%) don't know any neighbors by name. Yet neighbors are often the most convenient sources of assistance and casual conversation. An easy way to "break the ice" is to introduce yourself the next time you see a neighbor you haven't met. Even if you don't become friends, talking to neighbors is a great way to hear about issues in the neighborhood or even get tips about good local places to shop and eat.

ACTS THAT STRENGTHEN RELATIONSHIPS

Spend time with the important people in your life

Meaningful relationships require an investment of time and effort. Try to keep in contact with the key people in your social circle, whether it's through personal get-togethers, phone calls, e-mails, or Facebook. For romantic relationships and marriages, it is especially important to spend time together.

Keep things positive

Show an upbeat attitude and appreciation for others; express constructive thoughts. People appreciate others who act in positive ways (optimistic, cheerful, helpful), and people who act in positive ways have an easier time maintaining social ties.

Be more positive than negative: Research on close relationships has found that strong, close relationships are characterized by a 5:1 ratio of positive to negative interactions. For example, psychologist John Gottman studied married couples for many years and determined that five or more positive interactions for every one negative interaction is the “magic ratio” for a successful marriage. As the ratio moves to 1:1, divorce becomes more likely. Make it your goal to raise the positive-to-negative ratios in your social encounters. Criticism and other negative comments need to be balanced by a strong show of appreciation.

Be happy for the other person: One way to focus on the positive is to express approval when friends receive good news. How did you react the last time your friend or partner received some good news? Starting today, resolve to respond positively and constructively to your friends' and loved ones' good news and achievements. When you do, the relationship receives a boost.

Be a good listener

Give the other person your full attention. Put your mental focus on the person you are talking to instead of yourself. Let the other person know that you are paying close attention through eye contact, nodding, and other body language. Try not to interrupt the other person, and ask follow-up questions.



Be interested: Be genuinely interested in other people as you go about your day-to-day living. According to one author, “You can make more friends in two months by becoming really interested in other people than you can in two years by trying to get other people interested in you.” People respond well to people who are genuinely interested in them.

Keep your friend's secrets: Have a mutual understanding with your friend that any personal matters that the two of you discuss are absolutely confidential. Do not share your friend's personal information with other people unless your friend says that it's okay to do so. A betrayal of a confidence can be a quick way to end a friendship.

Treat other people with respect

Be respectful of other people's preferences and life circumstances. Treat them the way you want to be treated, with politeness and consideration. Respect other people even if you disagree with their opinions. Even friends can disagree on many things.

Remember details

When you remember not just someone's name, but also their spouse's, children's, and pets' names, their occupations and interests, and other things, it makes them feel good about themselves. It also helps them understand that you are really listening when they speak.



THE BEST PREDICTOR OF HAPPINESS

You may think that money has a big impact on your happiness. Actually, finances play only a relatively small role. Once a middle-class income is reached and a person's basic financial needs are met (food, shelter, and clothing), further material gains do not seem to improve well-being. For example, the difference between an annual income of \$5,000 and \$50,000 is large, but going from \$50,000 to a million will not have a large effect on happiness. At that point social relationships (including marriage, family, friends, coworkers, etc.) are our primary source of satisfaction.

Dr. Ed Diener from the University of Illinois conducted a study of the most and least happy people. The single quality shared by the happiest people was that they tended to have an abundance of rewarding social ties. The impact of relationships actually outpaced intelligence and education in affecting happiness. Another of Dr. Diener's studies focused on extremely poor people living in the slums of Calcutta, who had to beg for daily meals. Despite the horrendous conditions that these people lived in, they found that good social relationships and healthy bonds with family members were able to partially offset the negative psychological effects of extreme poverty.

Investing in social relationships is a very powerful strategy for becoming a happier person. The happier a person is, the more likely he or she is to have good social relationships and adequate social support. The relationship between happiness and social support actually goes both ways, social support makes people happy and happy people are more likely to acquire friends and companions.

CHAPTER 2

ANGER

MANAGEMENT

From “Break Stuff” by Limp Bizkit

“It’s just one of those days
Where you don’t want to wake up...
Everybody sucks
You don’t really know why
But you want to justify
Rippin’ someone’s head off..
It’s just one of those days”

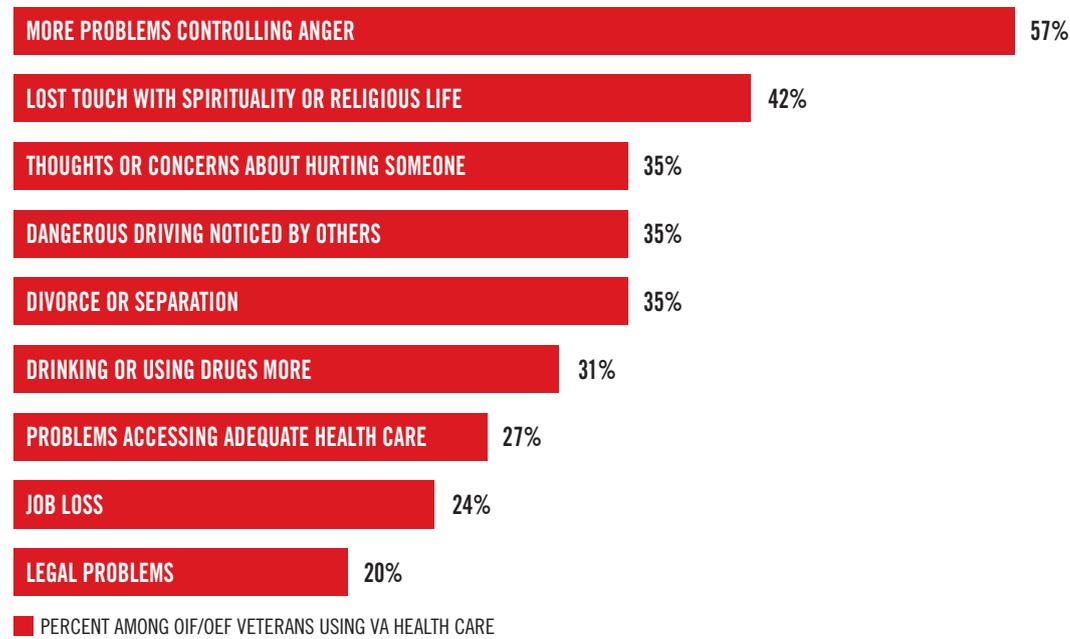
Dr. Buddy Rydell in the 2003 film Anger Management

“Temper’s the one thing you can’t get rid of by losing it.”

INTRODUCTION

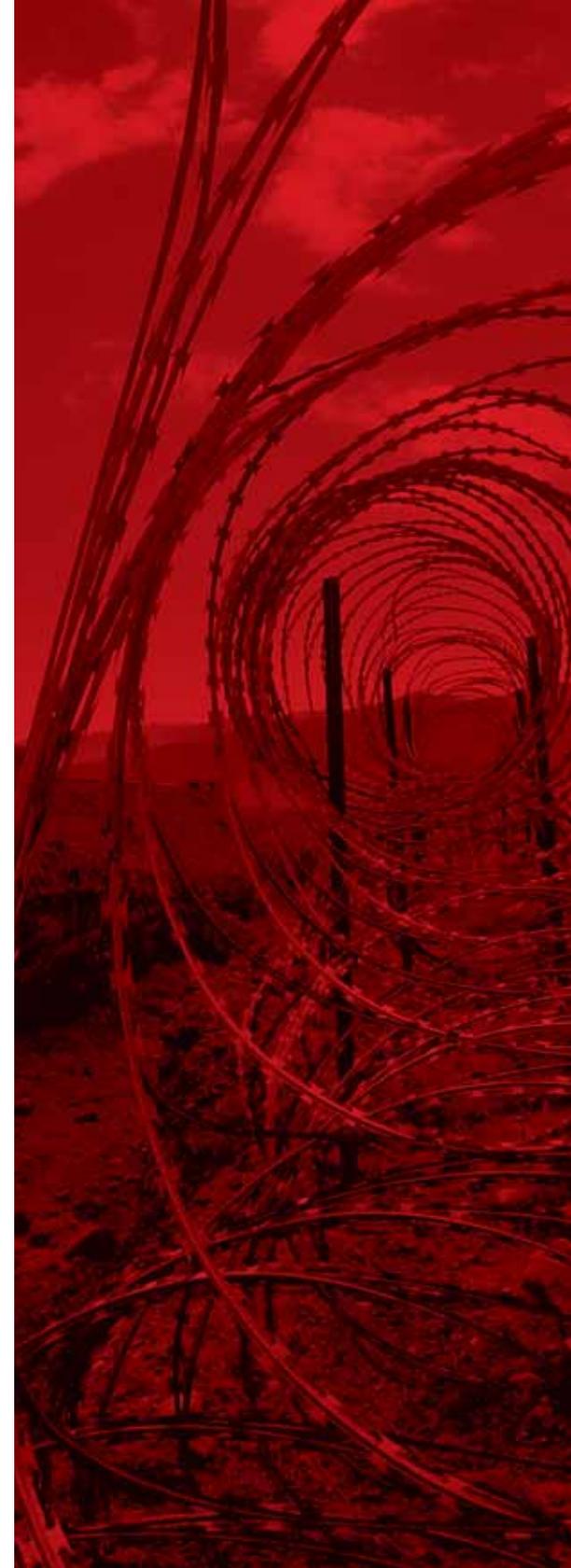
Dr. Nina Sayer and her colleagues at a Minneapolis VA medical center recently completed a nation-wide survey of reintegration problems among Iraq and Afghanistan combat veterans receiving VA medical care. Dr. Sayer reported that anger control was the leading problem reported by these veterans since coming home from Iraq or Afghanistan.

PROBLEMS EXPERIENCED SINCE RETURNING FROM IRAQ AND AFGHANISTAN



Of course, anger is not unique to veterans. Nonveterans exhibit road rage, air rage, cell phone rage, checkout rage, bike rage, and sports rage. In fact, attacks at sporting events for children are so common that the National Association of Sports Officials began offering assault insurance to members, including medical coverage for sports officials who are attacked while refereeing games. And then there's parking rage, rail rage, bank rage, roller rage, boat rage, desk rage, car alarm rage, and drivers who even honk at people on crutches.

Anger is a human condition, and not a "veteran condition." However, there is evidence that anger is somewhat more common among veterans than civilians, especially for veterans who have served in combat. Therefore, it is important to address anger as you prepare to reenter civilian life because the consequences of excessive anger can be serious. In this chapter we will discuss some of those consequences, offer you tools for self-assessment, and provide strategies for dealing with anger when it occurs.



DID YOU KNOW?

Researchers from Ohio State University have been studying physical responses to stress. There is evidence that stress in general can make people more susceptible to illness and slow down their recovery. There are even studies showing that people under stress heal more slowly from wounds. But does anger have a direct effect on wound healing?

In a recent study, the researchers focused on how people manage their anger. They found that some people kept angry feelings to themselves while others expressed displeasure. At the extreme end were people who expressed genuine rage when angry.

For the study, about 100 volunteers agreed to let researchers make a small blister on a forearm, then cover it with plastic to see how quickly it healed.

To their surprise, the researchers found that those who expressed anger, if in a controlled fashion, and those who kept their feelings to themselves, healed equally fast.

This was not the case with hotheads. They were about four times as likely as other participants to take more than four days to heal.

WHAT IS ANGER?

Traits that helped our ancestors survive continue to be passed down, generation after generation. Specifically, we have all inherited the “fight or flight” response to perceived threat. In primitive times such threats included attacks by wild animals, wars between tribes, and various hazards posed by nature. In all cases, we had to quickly respond by deciding to stand and fight, or flee if the cost of fighting is probable injury or death. These basic instincts are still part of us.

Imagine that you exit your front door and a relatively small dog is growling at you. You might fight—yell, try to chase it away, or even throw something. Now imagine instead that when you exit your door a pack of large dogs is snarling at you. Flight would be very smart, and you’d probably rush back inside and quickly close the door. In either case, your body would have mobilized for action. Your heart would pump blood faster, delivering more oxygen and blood sugar to your muscles in preparation for a confrontation. Processes to quickly thicken blood would increase to help with clotting in case of injury, and more endorphins would be released to provide a natural defense against pain. Also, your senses would sharpen through dilation of pupils and increased sensitivity of hearing. In short, you would be on high alert.

What does this have to do with anger? It would be great if our fight or flight responses were only triggered by the genuine life-or-death situations faced by our ancestors. Unfortunately, fight or flight is also triggered by many things in modern life that have nothing to do with actual survival. When we experience something highly unpleasant the same response occurs: we want either to put a stop to it (fight) or escape it (flight), and once again our body starts to go on alert. But many modern “hazards” allow neither fight nor flight. If a supervisor yells at you, or a bill collector harasses you, or an aggressive driver tailgates you, your body prepares to react even though there is no way to release the energy. It’s like being caught in a trap. These thwarted instincts can lead to frustration and anger. Welcome to modern life.

Of course, none of this explains why some people always seem to be angry no matter what the situation. Frequent anger is about more than the world around us—it is also about the world we create in our heads. Sometimes we’re simply impatient or unwilling to listen to other’s opinions, or we question peoples’ motives when there is no reason. If we go around thinking that people are stupid or out to get us then it’s hard not to be angry. In fact, by acting angry and yelling at people we might even feel like we’re delivering cowboy justice in a world where people get away with nonsense.

ASSESS YOUR ANGER

Let's conduct a brief assessment of whether you have a problem with anger. Science doesn't provide an exact standard for determining whether an anger problem exists, so we need to rely on common sense. If anger is disrupting your relationships or your job performance, it signals a problem. Here are some other signs that you might need to address your anger:

1. You spend a lot of time being angry. Maybe you spend so much time being angry that other people have mentioned it to you, or you just thought "that's me" when you read the first sentence. Or we can ask the same question another way: how often are you not angry? Can you remember recent, lengthy stretches of time when you were anger-free?
2. Your anger is so intense that it feels like rage and you have trouble controlling what you say or do. This should be an extremely rare experience and only to be expected in unusual situations, such as when someone is aggressively confronting you.
3. You don't cool off after you get angry. Most people take about 20 minutes to really calm down after an angry moment. If you remain angry for hours, if you often can't concentrate because of something upsetting that happened earlier, or if you go to bed still angry about something that happened in the morning, that could be a sign of an anger problem.

4. Small things provoke rage, like an old person who walks a little too slowly or a baby who cries a little too much. Do you get intensely angry at things that really aren't that important?
5. Do you often feel that the majority of people are hostile to you? That could be a sign that you're the one who is actually hostile and angry. If people seem to often act cautiously around you instead of being social, they may be reacting to your ongoing hostility.
6. Do you allow anger to motivate many of your actions? If anger is often the reason behind what you say and do, it's very likely that you have an anger problem.
7. Are you dangerous when you're angry? For example, is there a chance you might harm someone or break things?

Identifying whether someone has an anger problem isn't always easy, but if the above statements describe you pretty well then you need to take anger seriously and work on improving your situation.





IS YOUR ANGER A RISK FOR VIOLENCE?

Anger motivates aggression, but aggression is not an inevitable response to anger. Aggression is a choice. When you get angry, your decision to be aggressive partly depends on external things like rules and regulations that might be used to punish you. You might also be less aggressive if there are people watching who would be disappointed by your aggression. For example, most of us wouldn't punch someone in front of our parents.

But ultimately our inner compass is more important than external rules. For example, most people won't steal in front of others (external checks) but some people will steal if no one is looking because their conscience is silent (internal checks). The same situation applies with aggression. A strong sense of yourself as a reasonable person is an important deterrent to aggression.

CONFLICT TACTICS

Question: What types of tactics do you use when you have a conflict? Some tactics people may use are illustrated in the continuum below. What tactics do you use? Where would they best fit in this spectrum?

REASONING	VERBAL AGGRESSION	PHYSICAL AGGRESSION
Discussing things based on facts, trying to see both sides, bringing someone in to mediate.	Sulking, giving the silent treatment, insulting, yelling, stomping, threatening, hitting things.	Throwing things at someone, pushing, slapping, punching, stabbing.

Reasoning is the healthiest and most constructive conflict tactic. It is always best to attempt calm, logical discussion based on the facts. Verbal aggression and physical aggression describe increasing levels of hostility. Except in cases of self-defense, physical aggression is inappropriate and potentially illegal.

QUESTIONNAIRE: IMPORTANT SIGNS YOU SHOULD SEEK HELP FOR YOUR ANGER

YES NO

- IT SEEMS LIKE I AM ALWAYS GETTING INTO ARGUMENTS OR FIGHTS.
- MY CHILDREN, SPOUSE, OR CLOSEST FRIENDS ARE AFRAID OF ME.
- SOMETIMES I THINK THAT I MAY HURT SOMEONE.
- I HAVE THREATENED TO HURT A CHILD WITH SOMETHING MORE THAN A SPANKING.
- I HAVE THREATENED TO HURT A ROMANTIC PARTNER, FAMILY MEMBER, NEIGHBOR, FRIEND, COLLEAGUE, ACQUAINTANCE, OR STRANGER.
- I HAVE MADE PLANS TO PURPOSELY HURT OR INJURE SOMEONE I KNOW.
- I HAVE PURPOSELY DESTROYED OR DAMAGED ANOTHER PERSON'S PROPERTY OR BELONGINGS.
- I HAVE PURPOSEFULLY HURT SOMEONE.

Question: Are any of the above statements true for you? If you honestly agree with any of these statements, you should consult a professional counselor.



VERBAL AGGRESSION

Among adults, aggression is more likely to be verbal than physical. Dr. Daniel O'Leary, an expert in the field, has identified multiple types of verbal aggression, including:

1. Making critical comments that hurt self-confidence.
2. Being passive-aggressive (e.g., silent treatment, refusing to help)
3. Restricting freedom

Victims of verbal aggression experience many harmful effects, including lower self-esteem and greater depression and anxiety. Research further suggests that, in the long run, verbal aggression can be just as damaging as physical violence. In addition, those who perpetrate verbal aggression often go on to commit physical aggression. In other words, prolonged use of verbal aggression is toxic to both the perpetrator and the victim.

CASE STUDY: ISSUES WITH DRIVING

Some of the most angry situations we encounter happen while driving a vehicle. Problems include being stuck in traffic, rude drivers, and other annoyances. One veteran found a constructive way to deal with his frustration, as described below:

The following is from the article, “Adjusting Your Mirrors: Changing Perspectives” by Dr. Pam Murphy, a psychologist at the National Center for Telehealth & Technology.

“A while back, I was driving along a wide-open county road on my way to work. The speed limit was an incredibly slow 45 mph. On two previous occasions I had the opportunity to discuss the speed limit with an officer of the law. So on this day, I was motoring peacefully along at 45 mph.

Another car came up behind me. They had obviously not chatted with the local sheriff, or perhaps they learn even more slowly than I do. They were unable to pass and so they sat upon my back bumper... closely upon my back bumper.

I was not happy. In fact, I grew hotter and hotter as I saw them back there. Perhaps I said a few choice words. But after contemplating a wide variety of options (many of which are unprintable), I moved my mirrors. That’s right. I moved my mirrors so I could no longer see my fellow traveler. My stress level plummeted and my anger evaporated. Nothing else had changed — just my view of it.

It’s easy to forget we have a choice. Often it feels so natural to get angry we don’t even question if we might react differently. Our teenager smarts off. The grocery bag rips. A friend says the wrong thing. Someone tailgates us. So we hand over the remote control to our brain. It might take practice, but consider hitting the pause button first. Step back and see if there are other options besides blowing up in anger. See if there is a different way to view the problem. Sometimes just adjusting your mirrors works wonders.”

IS YOUR ANGER RELATED TO ALCOHOL USE?

Alcohol misuse is a common problem among military personnel. Unfortunately, people who drink more heavily are at greater risk of having trouble with alcohol-related anger and aggression. There are a number of ways that alcohol can contribute to anger problems. It can lower your inhibitions and lead to impulsive decisions. And there is a social aspect as well—while drinking in bars or at parties you are likely surrounded by other people using alcohol who are also at risk of becoming aggressive. For some people, drinking alcohol is simply an excuse to do things they wouldn't normally think they could get away with.

WHO ARE THE “ANGRY DRUNKS”?

Alcohol seems to have different effects on different people. Some people become very happy and friendly when they drink, while others become sad. Some people even routinely cry when they consume alcohol. But a certain percentage of individuals experience heightened anger, even to the point of committing violent acts. Research suggests that people who are “angry drunks” are also people who are angry in everyday life but don't necessarily express it. For example, one study of 3,000 young adults found that those who suppress anger while sober are more likely to be violent after drinking. The researchers conducting the study suggested that those with pent-up rage might act violently because alcohol reduces the self-control that normally keeps anger in check.

QUESTIONNAIRE: ALCOHOL-RELATED AGGRESSION

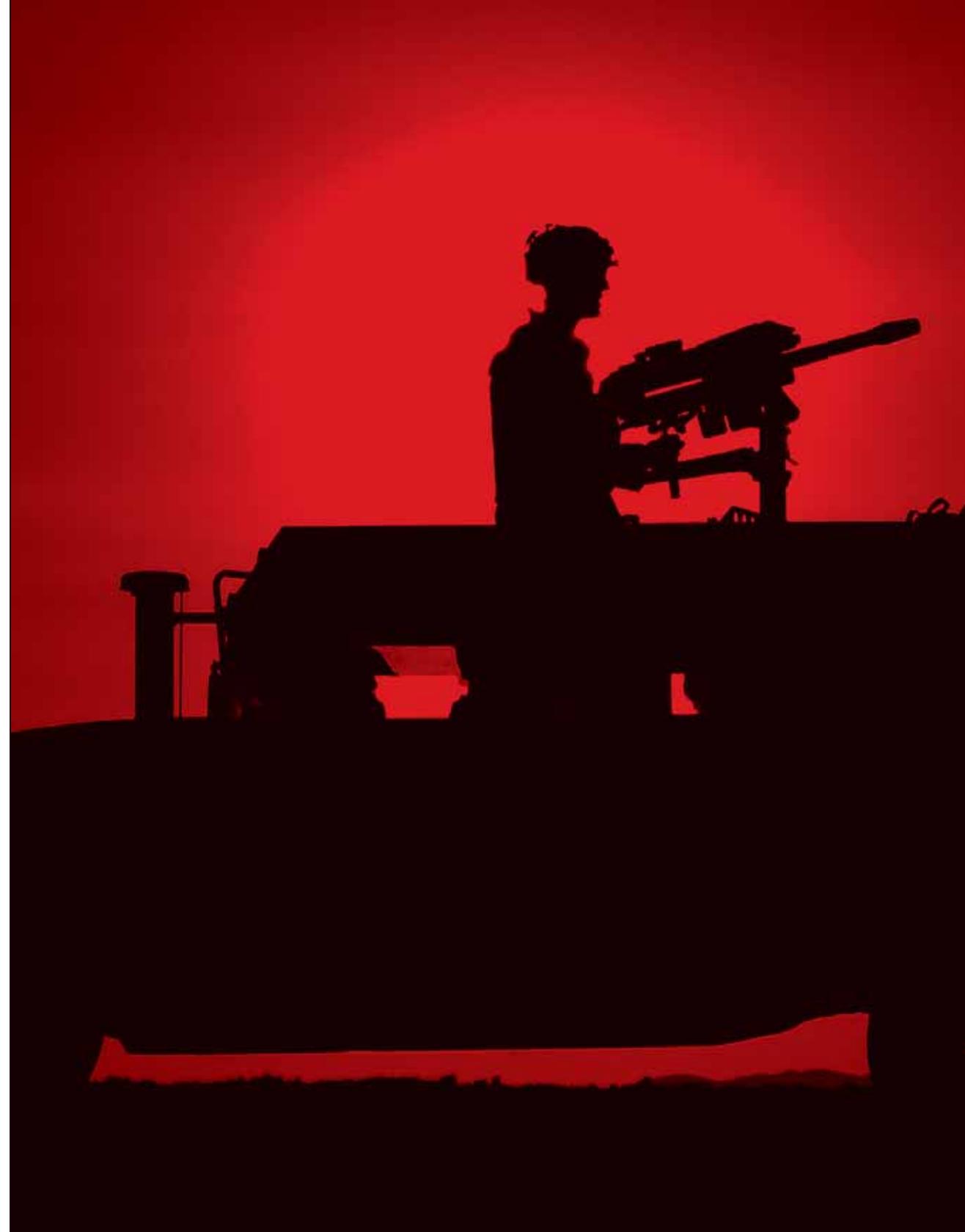
- YES NO
- I HAVE GOTTEN AGGRESSIVE WHILE DRINKING.
 - I HAVE GOTTEN AGGRESSIVE WHEN SOBERING UP.
 - I AM AGGRESSIVE WHEN SOBER, AND ALCOHOL MAKES ME MORE AGGRESSIVE.
 - I DRINK DELIBERATELY TO BECOME AGGRESSIVE.
 - I ENJOY BEING AGGRESSIVE, AND ALCOHOL HELPS ME GET IN THE MOOD.
 - THE PLACES WHERE I DRINK ARE PLACES WHERE OTHER PEOPLE DRINK A LOT AND GET AGGRESSIVE.
 - I HAVE BLAMED ALCOHOL FOR AGGRESSION, EVEN THOUGH ALCOHOL HAD NOTHING TO DO WITH IT.

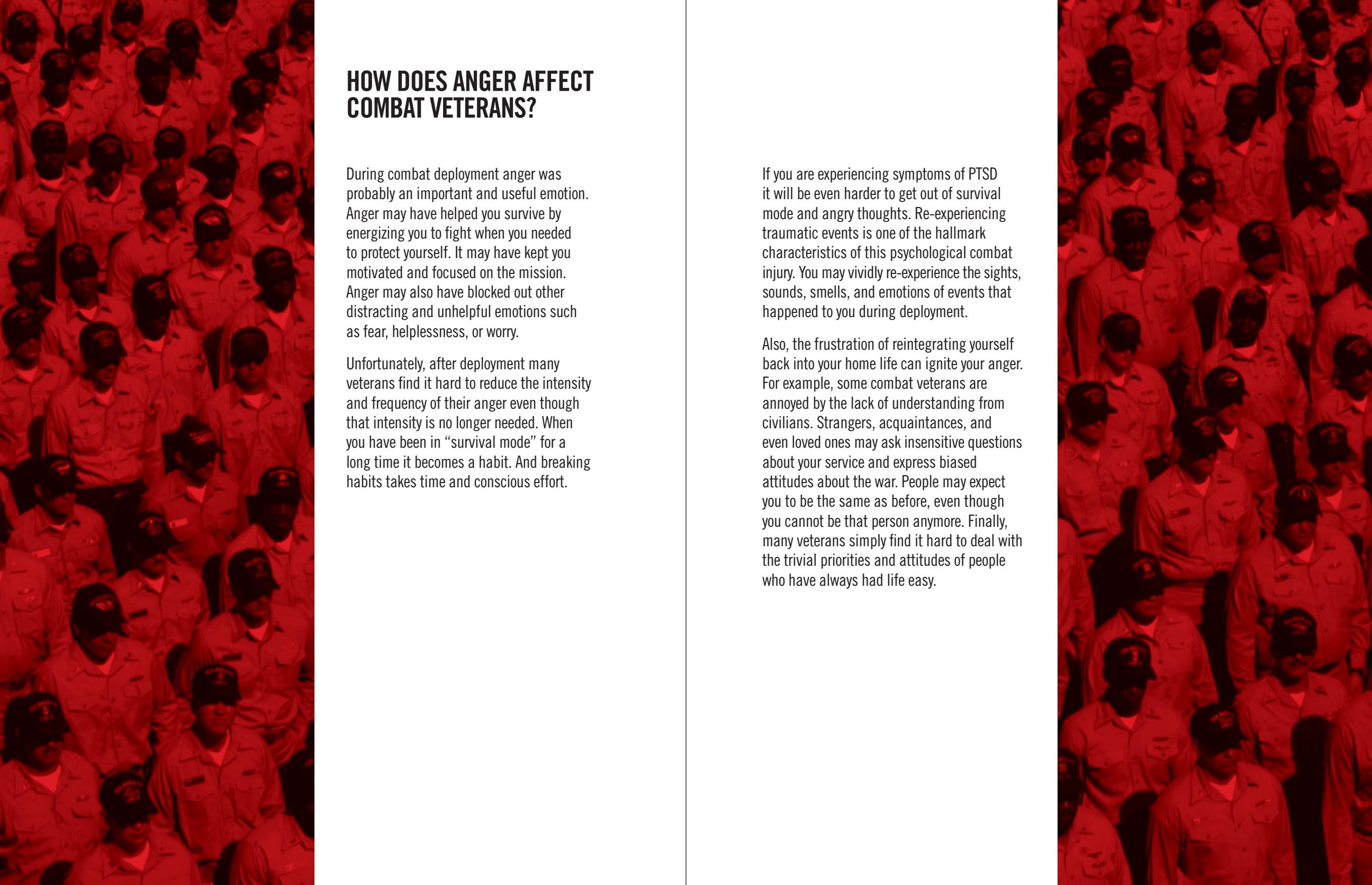
Question: in the last year, are any of the above statements true for you? If you honestly must agree with any of these statements, you should consult a health care professional to discuss the role drinking may play in your anger and aggression.

THE ANGER PROCESS

Psychologically, anger involves a complete process of emotions, thoughts, physiological responses and behavioral reactions. The process begins with a triggering event or situation. It is possible either to accept or reject this invitation to get angry. Choosing to become angry involves a mental evaluation of the situation, such as judgments about fairness or blame. Anger further involves specific physiological changes in the body. Everyone is unique, and may experience different physical reactions such as increased heart rate or tenseness in certain muscles. There are also great differences in the way people choose to react behaviorally when they get angry. The diagram below illustrates the components of the anger process.

ANGER PROCESS





HOW DOES ANGER AFFECT COMBAT VETERANS?

During combat deployment anger was probably an important and useful emotion. Anger may have helped you survive by energizing you to fight when you needed to protect yourself. It may have kept you motivated and focused on the mission. Anger may also have blocked out other distracting and unhelpful emotions such as fear, helplessness, or worry.

Unfortunately, after deployment many veterans find it hard to reduce the intensity and frequency of their anger even though that intensity is no longer needed. When you have been in “survival mode” for a long time it becomes a habit. And breaking habits takes time and conscious effort.

If you are experiencing symptoms of PTSD it will be even harder to get out of survival mode and angry thoughts. Re-experiencing traumatic events is one of the hallmark characteristics of this psychological combat injury. You may vividly re-experience the sights, sounds, smells, and emotions of events that happened to you during deployment.

Also, the frustration of reintegrating yourself back into your home life can ignite your anger. For example, some combat veterans are annoyed by the lack of understanding from civilians. Strangers, acquaintances, and even loved ones may ask insensitive questions about your service and express biased attitudes about the war. People may expect you to be the same as before, even though you cannot be that person anymore. Finally, many veterans simply find it hard to deal with the trivial priorities and attitudes of people who have always had life easy.

CASE STUDY: ONE VETERAN'S PERSPECTIVE

The following is from the article, "Fighting Combat Stress" by Lesley Kipling, published on Military.com

"Americans seem more concerned about who will win the latest reality TV show than they are about the soldiers in Iraq. It seems like the majority of the population doesn't give a darn. We've got men and women overseas dying. See, Americans have always been blessed, they've never experienced war on the homeland. . . . Soldiers who do make an effort to interact with civilians after they return are often faced with questions such as, "Did you kill anyone over there?" or "Did you ever get shot at?"

FACTS ABOUT ANGER AMONG VETERANS

- More severe combat exposure is a risk factor for aggression and violence among veterans.
- Hostility among veterans is related to poor psychological and physical health.
- Veterans with combat-related post-traumatic stress report more anger, aggression, and violence than veterans without PTSD.
- Veterans with combat-related PTSD have been twice as likely to report family violence compared to veterans without PTSD.
- In a recent study, 7% to 10% of personnel participating in transition classes prior to service separation reported that they had sought help for anger management in the past year.

ANGER CONSEQUENCES

Below are some facts you might consider about the serious effects anger may have on your quality of life:

MENTAL HEALTH PROBLEMS

- Lower self-esteem
- Increased stress
- More difficulty with other problems (e.g., PTSD, depression)

PERSONAL RELATIONSHIP PROBLEMS

- Distancing in relationships
- Conflict in relationships
- Violence in relationships
- Loss of relationships

PHYSICAL HEALTH PROBLEMS

- More frequent illness
- Headaches
- High blood pressure
- Coronary heart disease

PROFESSIONAL EMPLOYMENT PROBLEMS

- Poor evaluation by others
- Conflict with coworkers
- Missed promotions
- Loss of employment

MANAGEMENT ACTIVITIES

The following activities can help you assess and improve your anger management skills. For example, the anger log helps you recognize your anger patterns so that you can change course when a pattern is starting again. Other activities teach rapid strategies for deflecting angry thoughts and feelings.

Anger management can be easier if you improve your communication and relationship skills, and we provide tips in these areas. Finally, you can also try the relaxation techniques described at the end of this section. Practicing these activities regularly can help you keep anger and frustration in check.

It is important to remember that self-help is not for everyone. If you find you are frequently angry or you tend to become intensely angry, you may need to seek professional anger management coaching.

KEEP AN ANGER LOG

In this exercise you will track your anger for a week. The idea is to become more aware of the types of situations that trigger your anger and the types of reactions you have as you begin to get angry. In other words, this exercise will help you better understand your anger patterns.

Instructions: Create a new entry and answer the following questions each time you get angry.

ANGER LOG

WHERE DID YOU GET ANGRY?	
WHAT MADE YOU ANGRY?	
WHAT THOUGHTS WERE GOING THROUGH YOUR MIND AT THE TIME? (E.G., "IT'S NOT FAIR," "THIS SHOULD NOT BE HAPPENING," "I AM GOING TO TEACH THEM A LESSON")	
WHAT FEELINGS, PHYSICAL SENSATIONS, AND AUTOMATIC REACTIONS DID YOU NOTICE IN YOURSELF? (E.G., FEELING HOT, HEART RATE GOING UP, BREATHING FASTER, MUSCLE TENSION, STOMACH KNOTS, FINGER TAPPING)	
HOW ANGRY DID YOU GET?	
APPROXIMATELY HOW LONG DID YOU STAY ANGRY?	
WHAT DID YOU DO IN REACTION TO THE SITUATION? (E.G., CHANGE SUBJECT, WALK AWAY, THREATEN, YELL, USE INSULTS)?	

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WHAT MADE YOU ANGRY?	
WHAT THOUGHTS WERE GOING THROUGH YOUR MIND AT THE TIME? (E.G., "IT'S NOT FAIR," "THIS SHOULD NOT BE HAPPENING," "I AM GOING TO TEACH THEM A LESSON")	
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CHOOSE YOUR ACTIONS

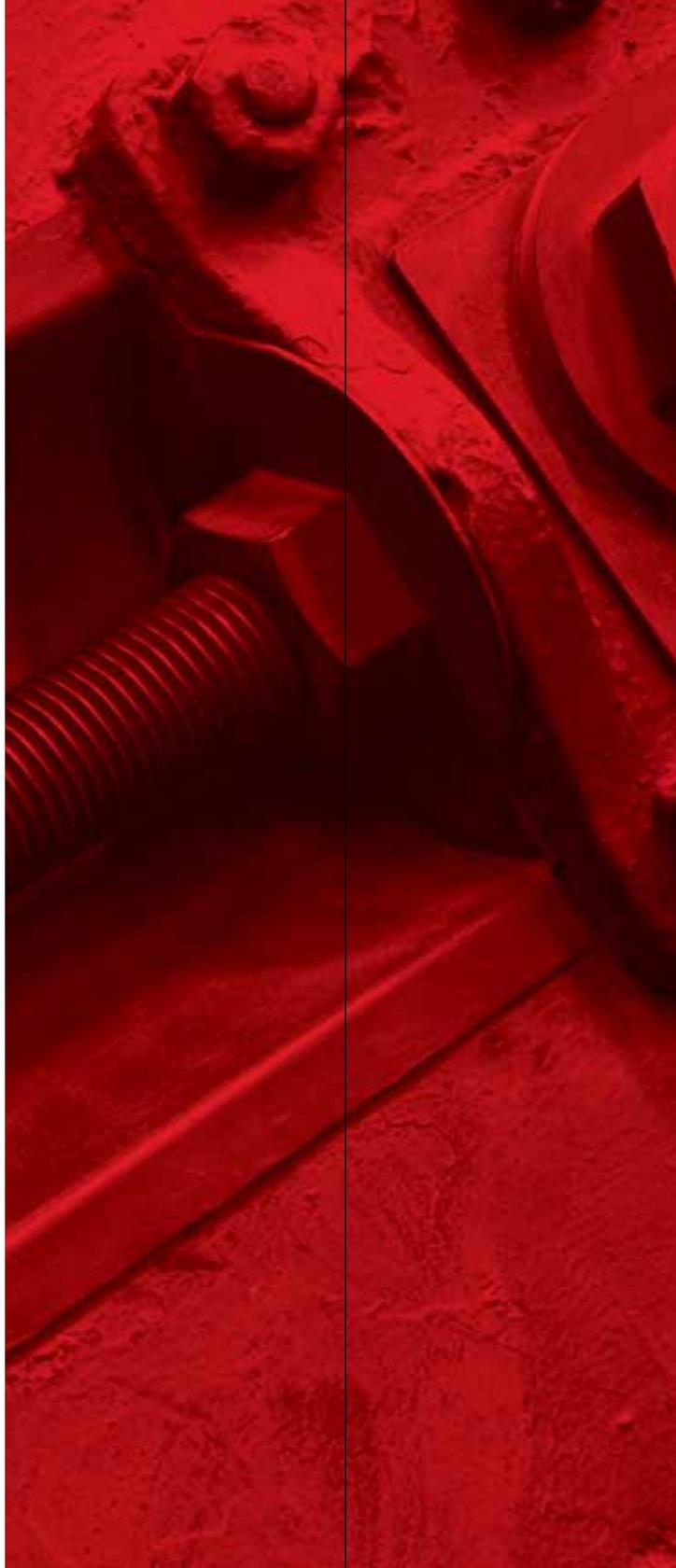
Anger may seem like a spontaneous emotion, but it is sometimes very foreseeable. That's because we often repeatedly get angry at specific situations or people, and as we build toward anger we might replay the same old thoughts. If we're aware of this, we can prepare in advance. Think about the patterns in your anger. If you completed the anger log, the entries can help you identify situations where anger is frequent. Once you understand your "triggers," you can start bringing them under control by planning an appropriate response like taking a break.

Of course, none of this is easy even though some self-help materials almost make it sound that way. Remember, anger has roots in fight-or-flight survival responses, meaning that it's a very powerful emotion that can easily rule you if you let it. That is why planning is so important.

MENTAL STRATEGIES

When you are very angry, the best strategies are to either distract yourself or entertain yourself. Here are some suggestions:

1. Think about physical and mental exits. A physical exit can be anything from completely walking away, to smaller diversions like going to get a drink of water or stepping away to tie your shoe or set your watch. A mental exit can be listening to a different person from the person who is bothering you, or simply counting backward in your mind. There are many things that might work temporarily and you should think of things that work best for you, including the entertainment option. For example, you can mentally write a song about a situation or look at someone and think about a role he or she could play in a movie. You can even create dialogue for that person. The important thing is to have a plan.
2. Think in terms of the big picture. How important is it to keep this relationship healthy? What do you stand to lose or gain in the situation? How will this problem affect your life in a week, a month, or a year?
3. Is there a particular person you are very likely to feel angry around? If so, talk with that person at a time when you are not feeling angry and explain to him or her that you don't want to argue anymore and would like to avoid a conflict.



IMPROVE YOUR COMMUNICATION

Do you tend to get angry during conversations? If so, you can decide ahead of time what you will do and say when you get angry. If you are angry with someone you have an important relationship with, learning some constructive communication skills may be valuable. For that, see the “Anger in Romantic Relationships” activity on page 66. However, if the problem really isn't critical or the person you are angry at is not someone you frequently deal with, you may simply need a way to avoid confrontation. You should think of things to say to different people such as coworkers, friends, and family. The goal is to keep both you and the other person from escalating. The following are a few ideas to begin with.

- It is not that big of a deal to me.
- Okay, this day has just been too long for all of us.
- Okay, I'll think about this; we can talk about it later.
- I really hate this situation; I am sorry about it.
- I didn't know you felt this way. I can see how you feel now.
- I'm not sure what to do; let's just set it aside for now.
- I am sure we can work this out. Can we meet in the middle somewhere?

Instructions: Below there is space for you to add your own ideas. And remember whatever you choose to say, try to speak slowly and in a calm voice, even if you feel like shouting.

-
-
-
-

REDIRECT YOUR THOUGHTS

Earlier, the topic of distraction was discussed. Distraction works as a mental exit strategy in the short term, but in the long term it's better to stay with the situation and change how you think about it.

Instructions: Use your anger diary to help you identify some of the thoughts you commonly have when you are getting angry. Then the next time, as soon as you identify that you are getting angry, take some time to rethink the situation. Count to 10 and take some slow deep breaths and consider alternative conclusions you could draw. Try to come up with at least 8 to 10 ideas. Some possibilities include:

- Under other circumstances, I would probably really like this person.
- This is just a bad day; it will all look different tomorrow.
- This situation would be hard for anyone.
- How much do I actually care about this? I really want to forget it and do something else.
- Just because this person is a jerk does not mean I want to be one.
- It is not personal; we are all just tired and out of patience.
- This person is not trying to hurt me; he/she just does not know how to handle the situation any better.
- My relationship with this person is worth more than this stupid argument.
- The most important thing is not justice, it is the kind of person I want to be.
- I am not going to give this person the satisfaction of pushing my buttons.



CASE STUDY: STOP RUMINATING

The following is from the 2005 article, “Learning not to Lash-out,” by psychologist Kathleen McGowan, published in *Psychology Today*.

According to McGowan, anger is closely related to a destructive mental habit called “rumination.”

“Rumination is what you do when you repeatedly relive an experience in your mind, replaying it, reviewing it, and reinterpreting it... As you mull over the details of an enraging episode, you may think you’re trying to get more information out of it—a new understanding. But you’re not really learning anything new. As you continue to replay the action, you keep the frustration and anger fresh and etch the incident into your mind. Hours later, even though you might no longer feel physically angry, these painful thoughts are still in the back of your mind.

Trying to short-circuit the cycle by squelching your angry thoughts usually isn’t very effective. Research suggests that a better technique is to distract yourself.

Other tactics: exercising or finding something funny to entertain yourself with. It’s almost impossible to laugh and be angry at the same time.”

COUNTERACT YOUR FEELINGS

Use your anger log to help identify important aspects of your emotional and physical experience when you get angry. The next time you notice you are getting angry pay attention to significant changes in your emotions and in your body. Then try to counteract them.

- If you find that your shoulder muscles typically get tense as you get angry, try to relax those muscles.
- If you often find yourself clenching and unclenching your hands, do something else with them (fold your hands, doodle with a pencil).
- If you breathe faster when you are angry, try taking deeper and slower breaths. One of the best ways to counteract your feelings is to practice meditative breathing.
- If you find you move or talk faster when you are angry, slow down and purposefully pause between thoughts as you speak.



ANGER IN ROMANTIC RELATIONSHIPS

Anger directed toward spouses or romantic partners can erode some of our most important relationships. If you do express anger with a spouse, girlfriend, or boyfriend, remember to always fight fair. This is critical, because according to psychologist John Gottman, conflict is the number one cause of divorce. Gottman refers to one type of harmful communication in relationships as a “harsh setup.” Harsh setups are often designed to hurt and almost inevitably invite a defensive response. An example of a harsh setup is, “Why are you too lazy to ever take out the trash?” A softer way to say the same thing is, “I feel like I’m always the one taking out the trash. Would you mind taking a turn?” In this example, the second version avoids unnecessarily belittling someone.

Sometimes you can take care of problems with important people ahead of time and avoid angry fights altogether. It is important to communicate your feelings calmly and constructively so that conversations don’t escalate. Consider the following rules:

1. Tell him or her the topic you want to discuss, and schedule a time.
2. Think through the issue thoroughly before you have the discussion. Be prepared to explain each of the following.

Your Observations: What exactly is going on? Try to think of very specific examples that illustrate what’s bothering you.

Your Feelings: How do you feel about the problem? Are you angry, sad, or frustrated? Now take this process a step further: how do you feel about how you feel? Do your feelings seem justified? Are you embarrassed by your reactions? Are you surprised by your feelings?

Your Wants: What do you want? How would you like to see the problem resolved? Try to be very specific about what you are asking for.

Your Intentions: What is the most practical thing to do? What compromise would work?

3. Take responsibility for your own thoughts and feelings. One good way to do this is to use “I” statements: “I know that you have rescheduled our vacation several times.” “I feel frustrated by this because I wanted to go earlier in the summer, long before school starts or my family comes to visit.” “I would still like to try to go soon.” “I can get a little extra time off from work this month so we can take an extra weekend, and I have some time to make some reservations.” These “I” statements clearly explain the speaker’s observations, feelings, wants, and intentions. They are much more likely to be effective than a “You” statement: “You have been really inconsiderate in putting your summer plans before our family!”

4. Set a goal to stay calm during the conversation. If you are very worried about how hard it will be to remain calm or respectful, consider having the conversation in a public place such as a park or restaurant. You could also plan some break times into the conversation before you start.
5. Set a goal to focus on what is most important: solving the problem in a way that makes both of you happy. Do not be distracted by other goals such as being right or getting even.
6. Do not purposely push buttons. In every good relationship, both partners usually know what will really upset the other person. In addition to those unique hot spots, it is always critical to stay away from yelling, swearing, insulting, or threatening.

ESTABLISH RULES FOR TAKING A BREAK

At times, discussions with romantic partners can lead to increasing frustration. To prevent frustration from triggering angry outbursts, it’s smart to create procedures for taking a break. For example, you and your partner might establish a rule where either of you can use an agreed-upon phrase like “I want to stop for now.” You must agree ahead of time that if either of you speaks your phrase, the conversation must be suspended. If you both respect this rule, you can be more confident that sensitive discussions will not get out of hand. Such knowledge may by itself encourage conversation because there is less reason to worry about the outcome. However, it is also important that breaks not become excuses for problem avoidance. If one of you insists on stopping the conversation, it is best to have an understanding that the conversation will resume within the next 24 hours or some other time in the very near future.

RELAX

Many veterans report feeling chronically “hyped-up” and unable to relax. Therefore, in addition learning how to manage anger in specific situations, it’s also good to work on being a calmer person overall. And with enough motivation and practice, you can actually succeed in lowering your anger threshold. The techniques below can help you lower your tension, help you to fall asleep at night, and help you reduce feelings of frustration and anger. It is important to practice this regularly for a month or two to start really feeling the benefits. For best results, practice once or twice a day for about 20 minutes each time.

EXERCISE 1: SYSTEMATIC RELAXATION

In systematic relaxation you tense individual muscles and then relax them. In this exercise it is important to recognize the difference in how each part of your body feels when it is tense versus when it is relaxed.

1. Sit in a comfortable chair in a relaxing position. Do not cross your legs. Your feet should be flat on the floor, and your arms should be lying flat at your sides. Close your eyes.
2. Begin by taking several deep breaths. Think of the way your breathing feels as you are falling asleep and practice breathing like that. As you breathe, pay attention to the air flowing gently in through your nose, into your lungs, and out again. Breathe slowly so that it takes about eight seconds for each breathing cycle. Take about 10 or 15 more breaths like this.
3. Flex your right foot up. Clench the muscles tightly, but not to the point of pain or discomfort. Hold your foot like that for about 5-10 seconds. Pay attention to how your foot feels with the muscles tensed. Is there some part of your foot that starts to feel tired first? Do your muscles start to feel warm?
4. Now relax your foot as much as you can. Focus on breathing deeply again. Each time you breathe out, try to relax the muscles in your foot just a little bit more. For about

20-30 seconds, pay attention to how your foot feels now. Which parts of your foot relax fastest? Does it feel lighter? Is there a point at which you almost cannot feel it anymore?

5. Repeat this exercise for your left foot and then for each of the following parts of your body, tensing them and then relaxing them, in order:

- Right leg (lift slightly; tighten quads)
- Left leg (lift slightly; tighten quads)
- Right hand (clench fist)
- Left hand (clench fist)
- Right arm (tighten bicep)
- Left arm (tighten bicep)
- Abs (tighten)
- Shoulders (shrug)
- Jaw (clench teeth in a big “smile”)
- Forehead (shut eyes tightly)

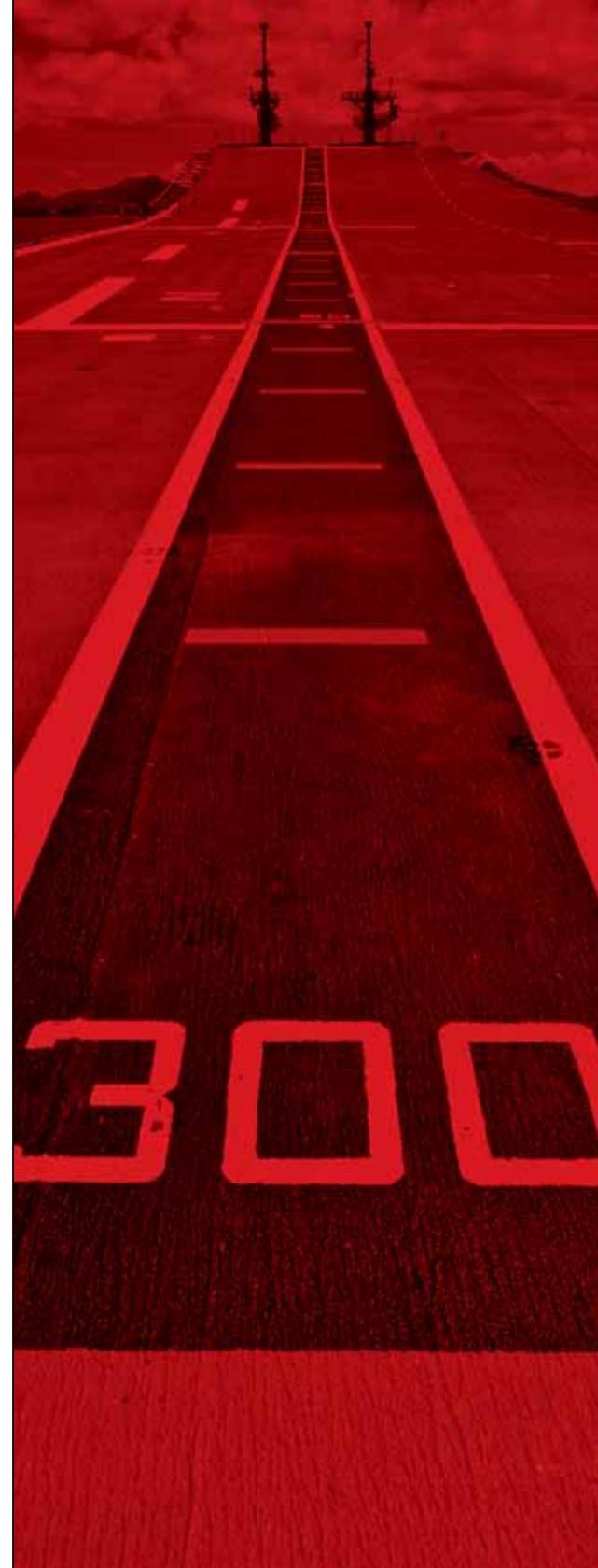
After you have gone through your whole body, take some time to continue breathing and stay relaxed. Pay attention to which parts of your body feel the most relaxed. Can you feel the weight of your body lying completely limp? Take as long as you like to enjoy the relaxed feeling.

EXERCISE 2: RELAXATION IMAGERY

Find a quiet place with dim lighting if possible. While you are going through this exercise, do not worry about other thoughts that may interrupt. If other thoughts arise, that is okay just keep going back to the script and the imagery.

1. Sit in a comfortable chair in a relaxing position. Do not cross your legs. Your feet should be flat on the floor, and your arms should be lying flat at your sides. Close your eyes.
2. Choose a safe and relaxing place you would love to be. It may be in an outdoor setting like the beach or beside a river, or floating in a boat on a river. Perhaps you'd like to be in your own home on a day with no worries, or in your own bed at home if you are traveling. Close your eyes and imagine you are actually there. Imagine the sounds you may hear and feel the temperature of the air. What colors are around you?

3. Next focus on your breathing. Think of the way it feels the moment when you are falling asleep and practice breathing like that. As you breathe, pay attention to the air flowing gently in through your nose, into your lungs, and out again. It should take several seconds for you to breathe in and out. Take about 10 or 15 more breaths like this.
4. Now imagine that the air you are breathing in is like a warm bath filling your body. You can direct that flowing warmth into each part of your body to melt any tension you may feel.
5. Start with your head. Notice what your muscles feel like in your face and scalp. Take a deep breath in and as you breathe out imagine a flood of warm air flowing through all of those muscles. Each time you breathe out, use that warm air to melt and relax each of the muscles in your face one by one. Be sure to relax the top and the back of your head as well.



6. Repeat the process you used with your head and face with each of the following parts of your body, first noticing how your muscles feel. Which of them feel tight? Next, as you exhale use your breath to help you melt away those tensions. Keep going, head to toe.

- Neck
- Shoulders
- Arms
- Hands
- Chest and stomach
- Hips
- Legs
- Feet

You may fall asleep, and this is also okay as long as you do not need to be anywhere soon. Set an alarm on your cell phone or your watch if you are worried about that.



EXERCISE 3: MEDITATE

Meditation is the practice of focusing your attention on a very simple thought, sound, or image. Whenever you are distracted, simply return your attention to this simple focus. It can also be the practice of being aware or “mindful” of all levels of your current physical and mental experience, starting with awareness of breathing. Like systematic relaxation, meditation is helpful for reducing anxiety, frustration, and anger. There are a number of different ways to meditate, and you may already be doing some meditation. For example, a cadence call as a group or a song by yourself while running is meditative. Prayer is a form of meditation. Try spending about 20 minutes daily practicing any of the following methods. As with systematic relaxation, this technique takes a month or two of practice to really start feeling the results.

ROUTINE TASKS

You can use routine tasks, such as taking a bath/shower or washing the dishes, as an opportunity to meditate. Make this task the most important thing in your life at that moment. Make every movement about twice as slow as usual and use this time to pay attention to your experience and each step in the process. The most important way to begin paying attention to each moment is to focus on your breath. As you breathe in think about how it feels to breathe in. As you breathe out, think about how it feels to breathe out. When

you first start practicing this type of meditation you may try slowly counting your breaths from 1-10 each time you exhale. Once you get to 10, start counting again from 1. If you lose track of the count, start over from 1. After focusing on your breathing for a few minutes, begin to pay attention to the task. For example, if you are washing the dishes notice how the water feels on your hands, the texture of the dish, and the motion of your muscles as you clean. If a thought about anything other than this task interrupts you, notice what the thought is, acknowledge it, and then refocus on your experience of the task. Generally, the best way to refocus is to pay attention to your breathing again. Some of the thoughts that interrupt your focus may be important to consider later. However, during meditation, you should continue to try to experience the moment and refocus your attention on the task.

TAPES OR SCRIPTS

There are a number of tapes or scripts available that you could use to practice meditating. One is available online, posted by the Mayo Clinic at mayoclinic.com/health/meditation/MM00623. This videotaped script is approximately six to eight minutes long. The transcript of the video clip also is posted and is simple enough that you could go through this brief meditation exercise on your own anywhere you have a moment to sit quietly.

CHAPTER 3

PAIN

Julius Caesar

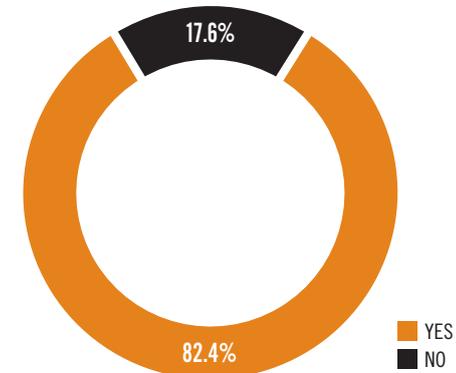
**“It is easier to find men who will volunteer to die,
than to find those who are willing to endure pain
with patience.”**

INTRODUCTION

Wherever you get your news from, the message about health problems in active duty personnel and veterans reads pretty much the same. Post-traumatic stress disorder (PTSD) and traumatic brain injury get the headlines, implying that these are your leading health concerns. However, a study of over 470,000 OIF/OEF Veterans receiving care at Veterans Administration (VA) facilities in 2011 found that 28% had PTSD and about 6% had a TBI, while 34% were treated for head/back/neck pain. Because of statistics like these, pain is increasingly recognized as a leading health concern among Veterans, whether or not a combat tour was served.

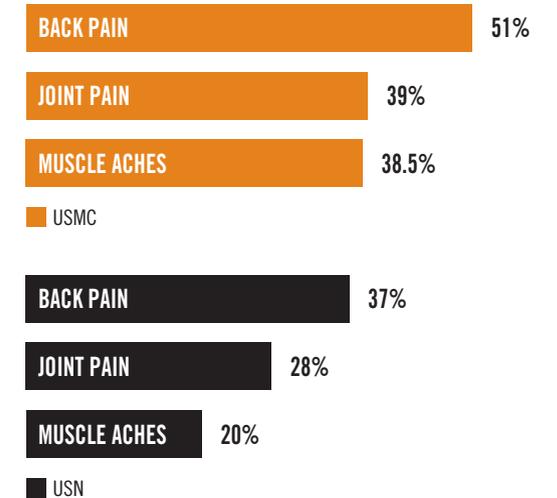
In earlier chapters, you learned of a study conducted by the Naval Health Research Center (NHRC) that surveyed several thousand Marines and Sailors in Transition Assistance Program (TAP) classes from 2007-2011. These service members were asked to describe various aspects of their physical health, including any bodily pain they were experiencing. The results of this study confirm that pain is a common experience in Marines and Sailors participating in TAP and preparing to leave active duty; about four out of five individuals reported experiencing bodily pain in the month prior to the survey.

PAIN IN PAST MONTH AMONG MARINES AND SAILORS IN TAP CLASSES



Also, NHRC found that Marines were more likely to report pain than Sailors, as shown in the graph below. For both Marines and Sailors, however, back pain was the leading cause of discomfort.

CAUSES OF PAIN AMONG MARINES AND SAILORS IN TAP CLASSES



GOVERNMENT RESPONSE

The Veterans Health Administration (VHA) has begun promoting pain as the fifth Vital Sign, along with the standard four signs of body temperature, pulse rate (or heart rate), blood pressure, and respiration rate. The VA Vital Sign initiative establishes the routine screening and assessment of pain as national policy throughout the VHA health care system, and acknowledges that pain is one of the most critical indices of overall health. Pain screening is now considered a routine part of assessment. Further, in 2008, President George W. Bush signed the Military and Veterans Pain Care Act into law, which established pain care programs within all inpatient VA facilities and mandates that VA health care professionals be trained on how to assess and treat pain.





DID YOU KNOW?

In 2012, a teenage girl was featured on the cover of *The New York Times*, with the word “painless” printed across her photograph. The girl, Ashlyn Blocker, suffers from an extremely rare genetic disease called congenital insensitivity to pain (CIP), which is characterized by the inability to feel pain. Blocker, and others with CIP, frequently sustain injuries like severe burns and cuts because they lack the instinct to avoid things that most humans know will cause pain, such as fire or sharp objects. In *The Times* article, Blocker described a recent incident in which she reached into a pot of boiling water with her bare hand to retrieve a fallen spoon. It was only after she saw her skin bubbling that she realized what she had done.

Stories like Blocker’s remind us that as frustrating as it is to deal with bodily pain, it does serve an important biological purpose. Pain serves as a warning sign when we are experiencing damage to our bodies. It’s the instinct to remove your hand from a fire, not put weight on an injured ankle, and to stop scratching an itch before you break the skin. Pain is actually critical to human survival.

COMMON SOURCES OF CHRONIC PAIN

Four sources of pain comprise the majority of all chronic pain cases:

1. Headaches, 2. Back pain, 3. Arthritis, and 4. Widespread pain.

HEADACHES

Headaches are very prevalent in service members; in 2011 it was a common cause for outpatient medical visits with over 76,000 service members seeking treatment. According to the National Center for Health Statistics, women are more than twice as likely to experience headaches and migraines as men. The cause of chronic headaches is not always clear, but many times they can be attributed to stress or prior head trauma, both of which are common within military populations.

BACK PAIN

Military personnel and veterans experience higher rates of low back pain than many segments of the civilian population. In 2011 alone, over 200,000 service members sought treatment for back pain and back injuries.

Low back pain occurs in the lumbar region of the spine, which is the part of the spine that bears the weight of your upper body and head. Low back pain can be caused by a specific injury or incident, such as wearing heavy body armor or gear for extended periods, as well as the effects of aging and/or physical inactivity.

ARTHRITIS

Many people believe arthritis only affects the elderly, but a large number of young adults suffer from various forms of arthritis. Nearly one in 12 persons aged 18-44 years, and one in three aged 45-64 years in the U.S. have received an arthritis diagnosis. Of those with diagnosed arthritis, over 40% experience limitations in their activities.

Military veterans are more likely to develop arthritis at a young age than civilians. In 2011, it was reported that the rates of arthritis in 20- to 24-year-old service members were 26% higher than civilians of the same age. Furthermore, service members over 40 are twice as likely to be diagnosed with arthritis as civilians of the same age.

WIDESPREAD PAIN

Chronic widespread pain is the name given to the experience of pain throughout multiple parts of the body. Widespread pain is the most mysterious of all sources of chronic pain because it typically cannot be linked to any one cause. For this reason, and a lack of consistency in the medical definition used, it is very difficult to diagnose and treat widespread pain. For example, here are two of the different definitions of widespread pain:

1. Pain at more than three locations in both the upper and lower half of the body
2. All of the following are present: pain in the left side of the body, pain in the right side of the body, pain above the waist, and pain below the waist; axial skeletal pain (cervical spine or anterior chest or thoracic spine or low back)

Even with the lack of consistent diagnostic criteria for widespread pain, it has been documented in a surprisingly large proportion of adults, both civilian (~11%) and military (28%).

CASE STUDY: THE RIGORS OF WAR

The following is from the 2011 article, “Rigors of war leave troops battling arthritis at a young age” by Lesley Kipling, published in *Stars and Stripes*.

“BAUMHOLDER, Germany—Staff Sgt. Thomas Wenzke would sit for hours, hunched over the five-ton truck’s window, scanning for hints of bombs along Iraq’s garbage-lined roadways.

The truck—reinforced with heavy armored plates that had ruined its suspension—motored over crater-sized potholes, and Wenzke’s spine would feel every jolt. His body armor, weighing 50 to 60 pounds, added to the strain.

Convoy forays like this lasted from three to 30 hours, he said, depending on the number of breakdowns and firefights.

“By the time we got back,” he said, “I’d be bent over and hobbled like I was an old man of 50 or 60.”

Wenzke said, since his yearlong deployment in 2006, he has suffered from a herniated disk and degenerative arthritis in his spine, for which there is no cure.

He is 29 years old.

“When you hear ‘arthritis,’ you think it’s a disease you get as you age, an elderly person’s condition,” Wenzke said. “It’s nothing I ever thought about having. I thought it was just a tweaked muscle, something like that, definitely not arthritis.”

PROBLEMS WITH CHRONIC PAIN

When pain does not subside after three to six months it is considered chronic pain, and its effects can be significant for those who live with it. Military service members and veterans are at special risk for chronic pain. For example, between 29% and 47% of OEF/OIF veterans report chronic pain, depending on the survey. This is nearly as high as the percentage of retired professional football players with chronic pain. Chronic pain is difficult to treat because, unlike most other disorders or diseases, each person experiences it in a different way and sometimes the exact cause is unknown.



EFFECTS OF PAIN

Chronic pain is a major concern not only because it is common among veterans, but also because of the numerous and far-reaching effects it has on health and overall well-being. This section describes some of the most significant effects of pain.

PHYSICAL FUNCTIONING

EMOTIONAL DISTRESS

PRODUCTIVITY

INCREASED COSTS

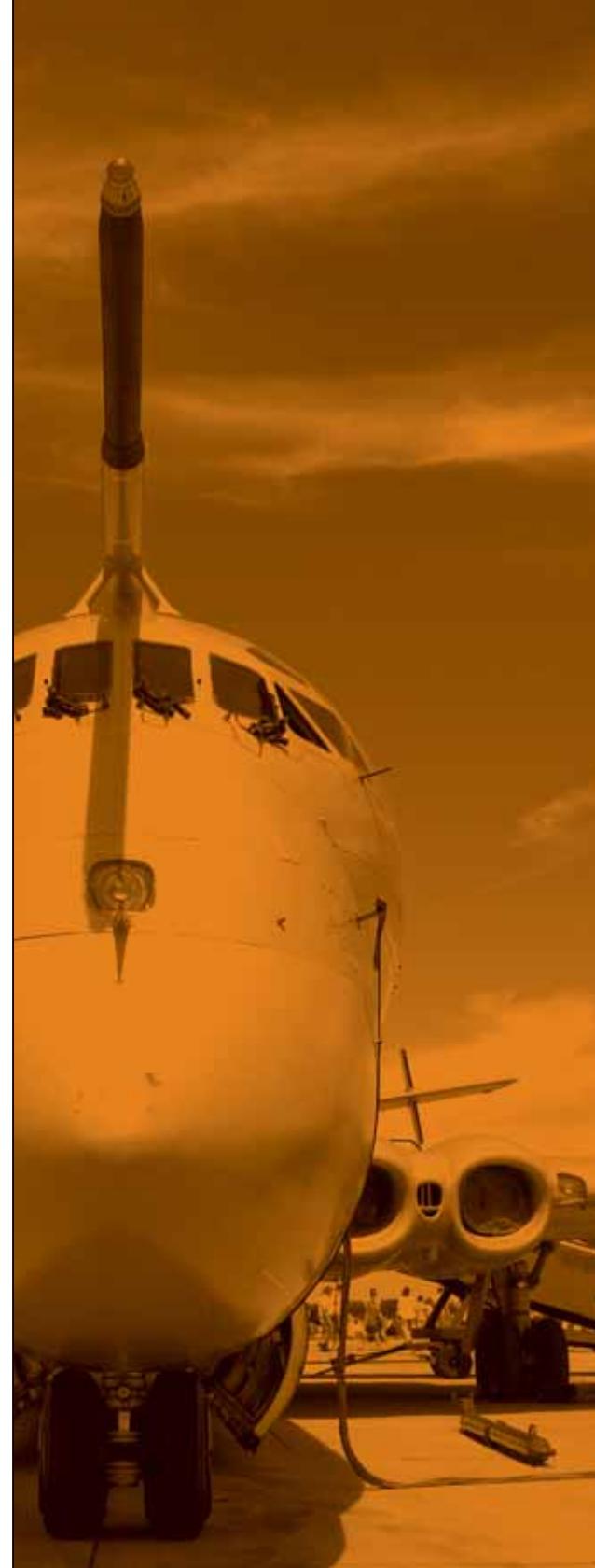
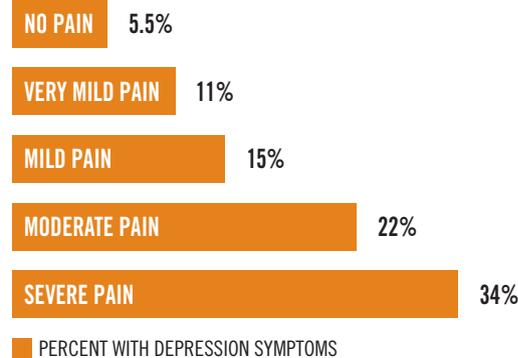
PHYSICAL FUNCTIONING AND MOBILITY

The most immediate consequence of chronic pain is limitation in daily activities. Individuals experiencing chronic pain often lose varying degrees of physical functioning, making it increasingly difficult to complete what were once routine tasks such as washing dishes or walking the dog. Musculoskeletal disorders, including back pain and arthritis, account for more functional limitations than any other medical condition and are a leading cause of long-term disability and days with restricted activities.

EMOTIONAL DISTRESS

The link between pain and emotional distress, including feelings of depression and anxiety, is well established. In fact, researchers at Harvard describe chronic pain as “an emotional condition as well as a physical sensation.” Individuals with chronic pain are many times more likely to develop depression than those without pain. It has been estimated that over half of all people with chronic pain also have symptoms of depression. The chart below, which is based on survey data from Marines and Sailors in TAP classes, provides further evidence. It is very clear that as pain level increases, so does the probability that depression is also present.

PAIN AND DEPRESSION OCCUR TOGETHER AMONG MARINES AND SAILORS IN TAP CLASSES



PRODUCTIVITY

Your Transition Assistance Program class is designed to prepare you for civilian employment. However, even if you have the right skills, problems with chronic pain can have a strong influence on job advancement.

Multiple studies of work productivity have identified physical pain as the leading cause of absenteeism. For example, a study of nearly 8,000 employees of a large, American company, found that employees with a pain condition missed between one and six hours of work each month. Additionally, employees with a pain condition said that their work productivity was diminished by up to 36%.

HEALTH CARE COSTS

The costs associated with treatment of pain are substantial. Individuals experiencing body pain may spend thousands of dollars more each year on health care costs than those without pain. The annual cost of pain treatment depends on the specific pain condition. The condition with the greatest associated expense is back pain, which can create substantial costs in both time and money.

STRESS AND PAIN

Research has found that individuals who have higher stress levels also report more pain. This relationship is caused by one or more direct and indirect mechanisms, including the following:

IMMUNE SYSTEM

During times of stress, hormones are released into the body as part of our “fight or flight” response. While not harmful for short periods of time, long durations of stress with elevated levels of stress hormones can cause internal inflammation and tissue damage, along with greater pain. This process leaves us vulnerable to new illnesses as well.

TENSION

When we are stressed we often tense or clench our muscles, which can aggravate injuries, cause cramping, and even cause potential injury.

PERCEPTION

Stress can change our perspective on life and our interpretation of pain. When we feel stressed, we are more likely to be bothered by pain even if the pain itself is the same.

CASE STUDY: PHANTOM LIMB PAIN

Service members who lose limbs in explosions or accidents sometimes have physical sensations as though the missing limb was still there and moving with other body parts. The following is from the article, “Military Medicine Comes Up with Novel Treatments for Phantom Limb: Pain Persists After Amputation” by Sandra Basu, published in *US Medicine*.

“In October 2010, Marine Lance Cpl. Sebastian Gallegos stepped into a canal in Afghanistan just as a comrade stumbled onto an improvised explosive device (IED). The impact blew Gallegos forward and almost severed his arm. The arm was just “hanging on by a little piece of skin,” said Gallegos, whose injury led to the amputation of his right arm. Yet, even after the arm was gone, he still had feeling where it once was.”

Phantom limb sensations are often painful, and military doctors have tried to come up with ways to help such patients. One approach involves the use of mirrors. In this therapy, patients use mirrors to look at the reflection of their intact limb and mentally attempt the same movement with their missing limb. Remarkably, there is evidence that this therapy helps a number of patients with phantom limb pain.

DEALING WITH PAIN

As you have learned, bodily pain is an issue of frequent concern to military veterans. The following section explains how pain is treated, describes ways to assess and monitor your pain levels, and offers suggestions for dealing with pain.

TREATING PAIN: WHY IS IT SO DIFFICULT?

Chronic pain remains common largely because it is so difficult to treat. Individuals often experience pain for years with little or no relief, which begs the question *why?* Treating pain is difficult because both the cause and experience can be complex. Pain can cause the body's underlying system of nerves to "rewire" itself, perpetuating the pain. And when we are injured, our bodies release chemicals that change the nervous system and actually increase pain sensitivity. Stopping nerve or chemical responses in the body is extremely difficult, although the process of inflammation can be disrupted.

Personality, mood, brain functioning, and past history can also determine the pain experience as much as the injury or illness itself. Because every person is different, pain treatment can be a long process of trial and error.

One thing to be aware of is that in some cases, there is no cure for pain. In these instances, the goal of treatment is to reduce pain and to strengthen the individual's ability to manage and cope. Therefore, it is more fitting to refer to the process as pain management. To address the multiple dimensions of pain, management plans usually consist of several components including medications and counseling, as well as physical therapies. The following sections provide an overview of these treatments.

MANAGING PAIN: THE FIRST STEP

The first step in managing pain is to seek professional help. Many people, for various reasons, avoid medical treatment if they are injured or ill. When it comes to managing pain, this can be extremely harmful because delaying care could make the condition irreversible or worsen its side-effects. For example, avoiding care when you are in pain could limit your mobility, putting you at risk for depression and other negative health outcomes. There are some ways you can assess your pain, as shown on the following pages, but use your instincts. If you are bothered by pain that lasts longer than a few days or is very severe, call your medical care provider for assistance.

ASSESSING PAIN: HOW BAD IS IT?

It is very difficult to assess pain, because pain is such a personal and subjective experience. A number of different factors, such as our personality traits, our mood, or even our life experiences, can affect the way we experience and interpret pain. For this reason, pain is often measured two ways; pain severity and pain interference.

PAIN SEVERITY

Pain severity measures the degree of pain. One way medical professionals assess pain severity is to use a visual analog scale. The further to the right you mark the line, the more likely it is you should seek treatment.

Instructions: Mark an "X" on the line below where your pain falls in terms of severity.





PAIN INTERFERENCE

While it is important for a medical professional to know how much pain you are feeling, pain severity is not a very informative measure from a management standpoint. Pain interference, a measure of how much pain stops you from participating in your regular activities, provides a better idea of pain's impact. The following survey is called the Pain Interference Scale and it is a commonly used tool in medical settings.

Instructions: Take the survey and add up all your points on each of the seven domains. Each item on the Pain Interference Scale is presented with choices ranging from 0 to 10 (0 = Does not interfere to 10 = Completely interferes). Circle the one number that describes how, during the past 24 hours, pain has interfered with each activity. The higher the score, the greater pain interference you have and the more likely it is that you need to seek treatment.

	DOES NOT INTERFERE ← → COMPLETELY INTERFERES										
GENERAL ACTIVITY	0	1	2	3	4	5	6	7	8	9	10
MOOD	0	1	2	3	4	5	6	7	8	9	10
WALKING ABILITY	0	1	2	3	4	5	6	7	8	9	10
NORMAL WORK (INCLUDES BOTH WORK OUTSIDE THE HOME AND HOUSEWORK)	0	1	2	3	4	5	6	7	8	9	10
RELATIONS WITH OTHER PEOPLE	0	1	2	3	4	5	6	7	8	9	10
SLEEP	0	1	2	3	4	5	6	7	8	9	10
ENJOYMENT OF LIFE	0	1	2	3	4	5	6	7	8	9	10
TOTAL SCORE:											

PAIN MANAGEMENT TECHNIQUES

PHARMACOLOGICAL TREATMENT

There are many different types of pharmacological treatments for chronic pain, ranging from basic anti-inflammatory agents (i.e. Tylenol, Ibuprofen), to opioids (i.e. morphine, hydrocodone), to topical ointments. Each type of pharmacological agent treats pain in a different way. Some limit tissue inflammation, while others affect the communication between our nerves and brain to change the way we feel pain. One thing all agents have in common is that their effects on pain are not permanent; they provide only temporary relief.

PHYSICAL THERAPIES

The majority of chronic pain cases are the result of an injury or illness that caused damage to one or more body parts. Therefore, an obvious way to tackle pain is to strengthen and heal the affected body parts through physical therapy. Physical therapy can include strength and endurance exercises, flexibility and mobility drills, and even massage. Though physical therapy varies greatly for each condition and individual, diligently following the therapy routine is the key to achieving success in any therapy program. Many patients feel frustrated when they don't experience immediate results from physical therapy, and quit prematurely. This is a huge mistake. Think of an instance when you were trying to lose weight or even gain muscle; it took time and perseverance. The same is true for physical therapy. Though progress may seem incremental or even unnoticeable at times, listen to your therapist and follow his or her plan faithfully.

PSYCHOLOGICAL TREATMENTS

Our minds play an extremely important role in the experience of pain. For example, you may be familiar with the “placebo effect,” which refers to how our expectations can influence pain level. In research studies participants are given fake medicine that contains no pain relievers. Yet if participants believe that the fake pill is a real pain pill, their pain level diminishes simply because they expect it to do so.

There are even studies showing that if patients believe the fake pill is very expensive, their pain will diminish more than if they believe the fake pill is cheap. (We often think that more expensive items are somehow better). Because how we perceive pain can affect our recovery, psychological treatment of pain can be extremely effective.

Psychological treatment for chronic pain can include a number of different strategies, but all have a common goal—to improve your sense of control over your pain. The individuals who have the worst pain recovery rates and highest levels of functional disability are often those who catastrophize pain. Pain catastrophizing occurs when people have an extremely negative view of their pain and/or feel like they have no control over it. Examples of such thoughts are “I worry all the time about whether the pain will end” and “It's terrible and I think it's never going to get any better.”

A common intervention is cognitive behavioral therapy or CBT. CBT consists of identifying “triggers” that elicit emotional reactions. These triggers can be positive or negative, physical or emotional. Some examples of pain triggers include specific activities, smells, temperature extremes, and medications.

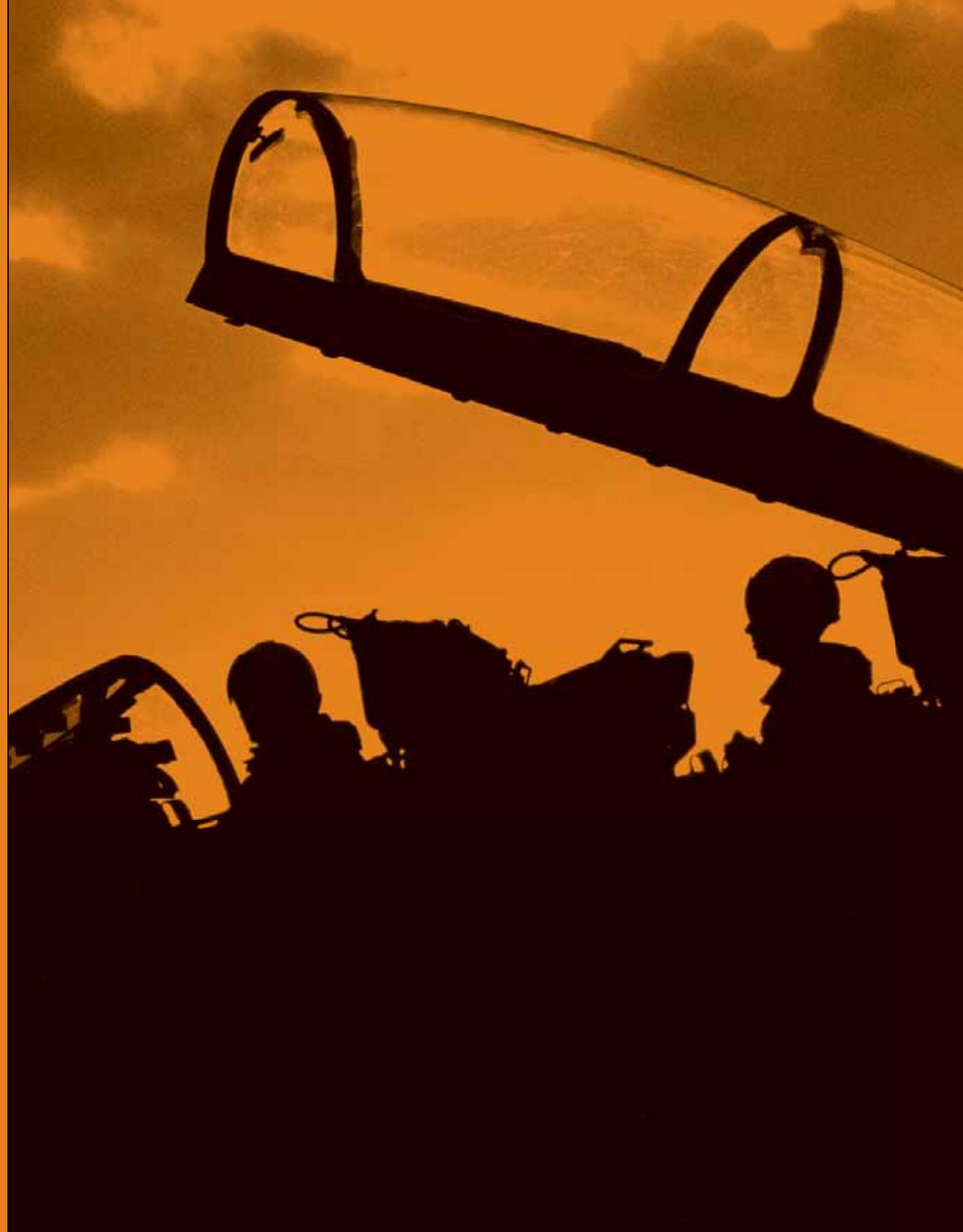
Once triggers are identified, you and your counselor or therapist work to change your response to these triggers. For example, a possible emotional response to extreme pain may be to feel powerless and think, “I can't take it anymore.” In CBT, a counselor would help you change your response to pain so that instead of having a negative emotional reaction, your new thought process might be, “I am stronger than this pain. I can get through this.”

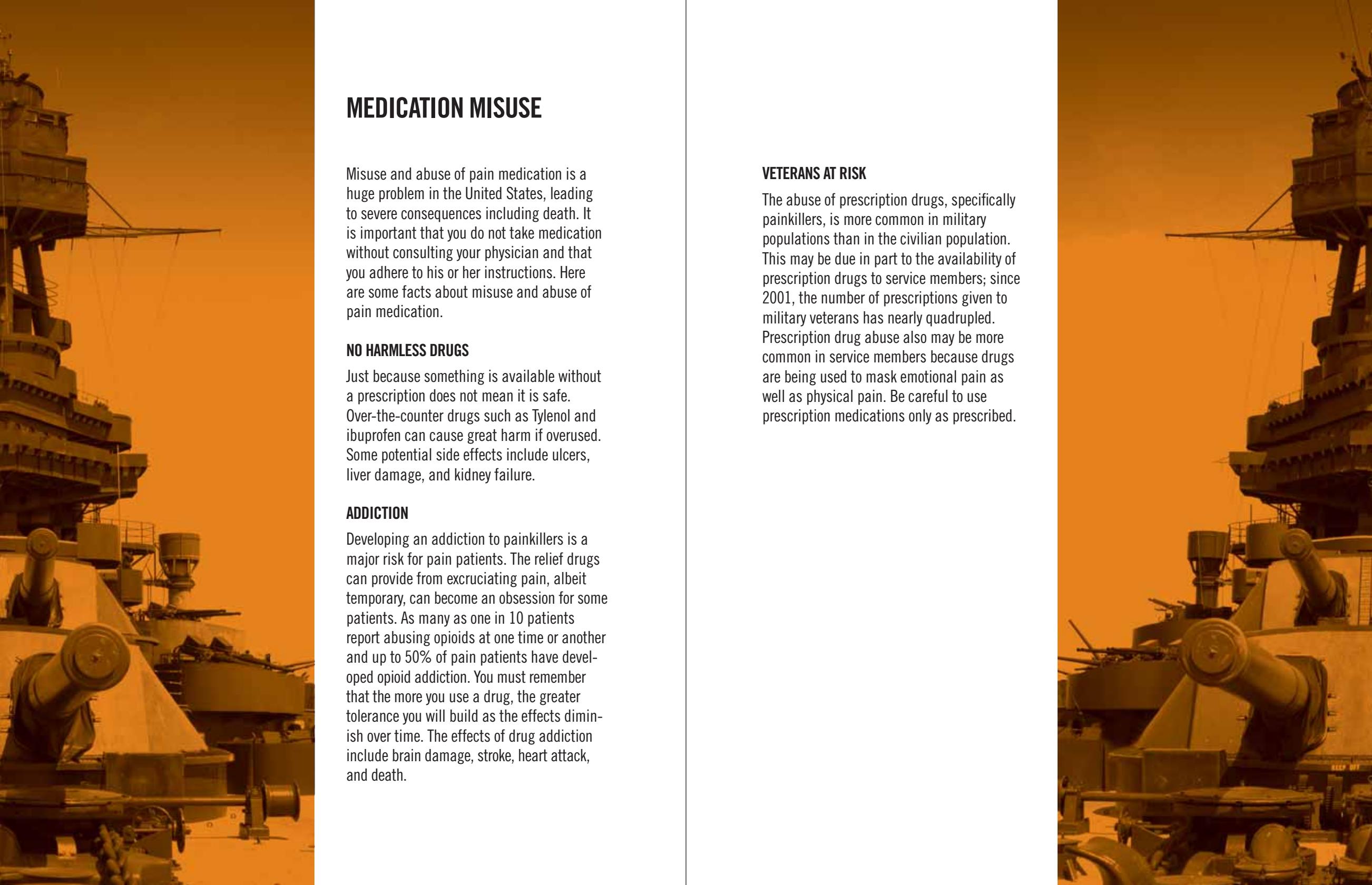
Another common approach is relaxation therapy. Relaxation therapy is helpful because it forces your body to release all tension, which is a major source of pain. Progressive relaxation, described in the Sleep chapter, includes consciously focusing on each body area to achieve a state of total relaxation. Another form of relaxation therapy is called guided imagery. This technique guides individuals through a positive visualization, such as a happy memory or experience, for the purpose of releasing pleasurable chemicals such as serotonin. The process is calming and provides relief from pain.

CASE STUDY: NO PAIN, NO GAIN

As military veterans, you have been trained to work through physically and mentally challenging situations. Your first instinct when experiencing pain may be to “tough it out” and avoid seeking professional care. However, this may cause your condition to worsen. It is important that you recognize when you need treatment and not delay visiting your physician. Even the DOD now emphasizes the importance of rapid pain treatment, as indicated by the following statement in a 2010 report from the Office of the Army Surgeon General:

Care for Warriors is rooted in a military culture that praises selflessness, toughness, and willingness to accept pain. “No pain, no gain” is a philosophy embraced by much of the Active Duty force and their leadership. This attitude often causes delays in seeking treatment, as Soldiers, Sailors, Airmen, and Marines attempt to work through their pain and “tough it out.” This frequently results in relatively minor acute issues later becoming harder-to-manage chronic conditions.





MEDICATION MISUSE

Misuse and abuse of pain medication is a huge problem in the United States, leading to severe consequences including death. It is important that you do not take medication without consulting your physician and that you adhere to his or her instructions. Here are some facts about misuse and abuse of pain medication.

NO HARMLESS DRUGS

Just because something is available without a prescription does not mean it is safe. Over-the-counter drugs such as Tylenol and ibuprofen can cause great harm if overused. Some potential side effects include ulcers, liver damage, and kidney failure.

ADDICTION

Developing an addiction to painkillers is a major risk for pain patients. The relief drugs can provide from excruciating pain, albeit temporary, can become an obsession for some patients. As many as one in 10 patients report abusing opioids at one time or another and up to 50% of pain patients have developed opioid addiction. You must remember that the more you use a drug, the greater tolerance you will build as the effects diminish over time. The effects of drug addiction include brain damage, stroke, heart attack, and death.

VETERANS AT RISK

The abuse of prescription drugs, specifically painkillers, is more common in military populations than in the civilian population. This may be due in part to the availability of prescription drugs to service members; since 2001, the number of prescriptions given to military veterans has nearly quadrupled. Prescription drug abuse also may be more common in service members because drugs are being used to mask emotional pain as well as physical pain. Be careful to use prescription medications only as prescribed.

SUPPLEMENTAL ACTIVITIES

The next several pages contain two activities to help improve your pain management. Activity 1 is a Pain Log, which will help monitor your pain levels and activities. Activity 2 is a Pain Treatment Log that will help you keep track of all doctor visits and recommendations.

ACTIVITY 1: PAIN LOG

If you have problems with pain, keeping track of your experiences can be very important. By logging your pain and the activities and actions that may relate to pain, you and your doctor can create a more effective treatment plan.

Instructions: Fill this form out every day for two weeks. After two weeks, go back and review what happened and what you did on the days where you were in the greatest amount of pain. If you notice a pattern, think of ways to change your activities.

93-1

PAIN LOG WEEK 1

	SUNDAY	MONDAY	TUESDAY
PHYSICAL ACTIVITY (TYPE AND DURATION)			
ALCOHOL (# OF DRINKS)			
FOOD (MEALS EATEN)			
MEDICATION (TYPE AND DOSE)			
STRESS (DESCRIBE AND SCORE FROM 1-10)			
MORNING PAIN (SCORE FROM 1-10)			
AFTERNOON PAIN (SCORE FROM 1-10)			
NIGHT PAIN (SCORE FROM 1-10)			
AVERAGE PAIN FOR THE DAY (SCORE FROM 1-10)			

WEDNESDAY	THURSDAY	FRIDAY	SATURDAY

PAIN LOG WEEK 2

	SUNDAY	MONDAY	TUESDAY
PHYSICAL ACTIVITY (TYPE AND DURATION)			
ALCOHOL (# OF DRINKS)			
FOOD (MEALS EATEN)			
MEDICATION (TYPE AND DOSE)			
STRESS (DESCRIBE AND SCORE FROM 1-10)			
MORNING PAIN (SCORE FROM 1-10)			
AFTERNOON PAIN (SCORE FROM 1-10)			
NIGHT PAIN (SCORE FROM 1-10)			
AVERAGE PAIN FOR THE DAY (SCORE FROM 1-10)			

WEDNESDAY	THURSDAY	FRIDAY	SATURDAY

PAIN TREATMENT LOG

DATE OF VISIT	NAME AND LOCATION OF PROVIDER	REASON FOR VISIT	TREATMENT DISCUSSED AND MEDICATIONS PRESCRIBED

PAIN TREATMENT LOG

DATE OF VISIT	NAME AND LOCATION OF PROVIDER	REASON FOR VISIT	TREATMENT DISCUSSED AND MEDICATIONS PRESCRIBED

CHAPTER 4

SLEEP

Do you know how the United States military weakened Iraqi defenses before invading in 1991?

“If you can’t kill them, you can keep them awake with bombs, hour after hour, night after night, making sleep deprivation a weapon. An army may travel on its stomach, but it’s got to have its ‘Z’s,’ too.

Allied forces in the Persian Gulf War are showering the Republican Guard, Iraq’s best troops, with bombs almost continually, day and night. Officials said yesterday the aim is not only to kill but to discomfort and demoralize. The loss of sleep is an important part of this.

Although sleep deprivation is seldom noted in tales of wartime heroics, experts say it can be an important element in winning or losing.”

–Associated Press

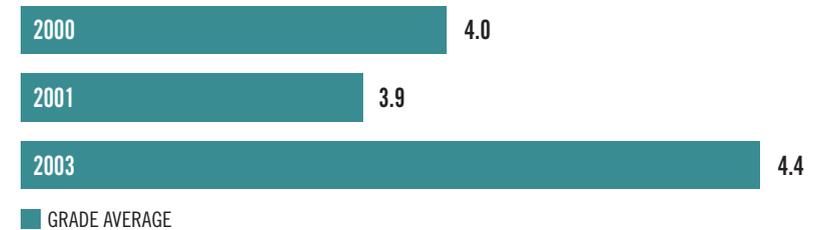
INTRODUCTION

Military service can challenge healthy sleep. When you went through basic training, perhaps it was hard to adjust to your sleeping quarters. Drills, inspections, and standing watches may have further reduced sleep. Later in your enlistment you may have struggled with time-zone changes on deployments and berthed in noisy or bright environments that kept you awake. And maybe you stayed up late to phone home, play video games, or just pass the time. Finally, if you've been in combat, you may have memories that return in nightmares and awaken you. So as you prepare to leave the military, there's a good chance that falling asleep and staying asleep could be difficult for you. This chapter will explain why good sleep is more important than you may realize, and also give you tools to build healthy sleep habits.

But first, let's review an example of how the military itself sometimes forgets sleep's importance. According to work by Dr. Nita Miller at the Naval Postgraduate School, Navy recruits attending boot camp traditionally received eight hours of sleep per night. Then, some argued that more skills could be taught and more activities accomplished if sleep was decreased to six hours per night. So in December 2001, Navy leadership authorized a reduction in recruit sleep from eight hours to six hours. Things didn't go well and the sleep regimen was soon returned to eight hours in 2002.

So, what did the Navy learn from this experience? After looking at the recruits' academic test scores across 2001-2003, researchers found that recruits who receive eight hours of sleep per night scored on average 11% higher than their counterparts who receive only six hours of sleep, as shown in the following figure.

IMPROVEMENT IN GRADES AFTER SLEEP WAS INCREASED IN 2003



Average standardized test scores by year. United States Navy recruits in years 2000 and 2001 were allocated six hr of sleep per night, whereas recruits in year 2003 were allocated eight hr of sleep per night.

Of course you are years past being a new recruit and having to pass exams. But the fundamental truth is that the quality and quantity of your sleep will always affect your abilities and your well-being. This chapter will help you take better charge of your sleep. It includes assessments and practical suggestions.

CASE STUDY: TWO TALES OF SLEEP LOSS

The following are comments from the 2011 article, “Seeking better sleep” by Seth Robbins, published in *Stars and Stripes*.

“I was in the shipyards 1.5 years for ships overhaul. As shutdown mechanical operator I had to operate all the valves/machinery for takeout/installation and testing. The civilian union members worked one of three shifts and they weren’t allowed to operate Navy valves/machinery, etc. US Navy personnel worked days and in addition, some of us every third day had to stay aboard ship 24 hrs. I would get very little to no sleep every third day that 1.5 years. God saw me through it, but I did relish and guard my sleep time as I had to in order to remain sane. I used earplugs every time I slept to keep out the needle-gun/air compressor and other noises. Some used eye-blinders.”

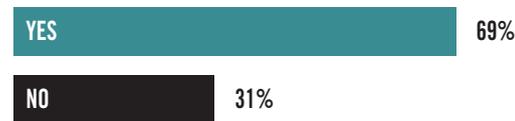
“I had pretty severe stress-related insomnia issues when in OEF. Lived on an air field and there were LOUD jets at all hours, day and night. They’d shake the walls. But it got so you didn’t hear that. I don’t think anything would have helped with sleep except escaping the toxic situation. Eventually everyone gets to go home — that was the solution I waited for. I was prescribed Ambien over there, and good God, I will NEVER take that or anything like it again. It got so I couldn’t sleep without it. And it was scary how many people were put on Ambien in OEF. We were all strung out on one med or another, just to function... Even after we got home, it took me at least six months to start sleeping relatively normally. I still haven’t gotten over the anger that the deployment left, and my temper’s so much shorter than it used to be.”



WHAT TO EXPECT WHEN YOU LEAVE THE MILITARY

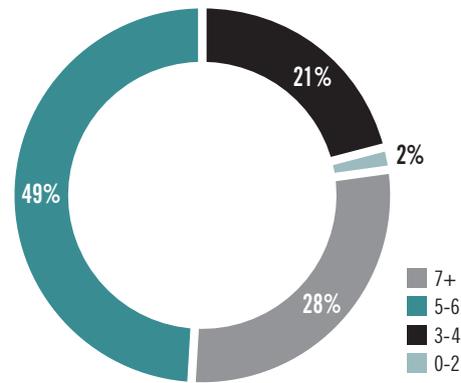
The Naval Health Research Center surveyed Marines and Sailors who recently left active duty. These new veterans reported that sleep disturbance was very common. As the chart below shows, over two thirds had trouble sleeping since becoming civilians.

TROUBLE SLEEPING SINCE SEPARATING?



Overall, only 28% reported getting seven or more hours of sleep per night (see right chart), which is the recommended amount for adults. Even worse, nearly one fourth reported sleeping four or less hours each night. A substantial number of new veterans were severely sleep deprived. Moreover, sleep problems tended to be more severe among veterans who served on combat missions.

HOURS OF SLEEP PER NIGHT IN NEW VETERANS



Let's do a quick assessment of your current sleep quality to see if there are issues you should fix now, before separating from active duty.

CHECKING FOR SLEEP PROBLEMS

There are several types of sleep concerns and it's important to understand key differences. First we'll focus on a specific problem called "sleep apnea" that's unusually common in military veterans. In fact, research shows that military veterans are four times more likely to suffer from sleep apnea than civilians.

SLEEP APNEA

The word "apnea" literally means "suspension of breathing." When you sleep your throat muscles and tongue relax more than normal, which narrows your throat. In some people this causes the airways to become partially or fully blocked, resulting in brief suffocation lasting 10 or more seconds. This lack of oxygen prompts the brain to urgently resume breathing again, which is done with a large gasp or snort. Most of the time, the person doesn't actually wake up, but still sleeps poorly because constant arousal of the brain prohibits settling into the deeper stages of sleep. Therefore, the person wakes in the morning feeling extremely tired. Sleep apnea affects all types of people, but those who are either overweight or are regular alcohol users have increased risk. Because sleep apnea has many side effects, it's important to rule it out before we go on to discuss more general sleep issues.

DID YOU KNOW?

Since Congress pushed for greater awareness of sleep disorders among veterans in 2007, the number of veterans receiving disability benefits for such disorders has increased by 61%, according to Department of Veterans Affairs data.



ASSESSMENT 1: ARE YOU AT RISK FOR SLEEP APNEA?

- YES NO
- SNORING:** DO YOU SNORE LOUDLY? (LOUDER THAN TALKING OR LOUD ENOUGH TO BE HEARD THROUGH A CLOSED DOOR)
- TIREDNESS/FATIGUE:** DO YOU FEEL TIRED, FATIGUED, OR SLEEPY DURING THE DAYTIME, EVEN AFTER A “GOOD” NIGHT’S SLEEP?
- OBSERVED APNEA:** HAS ANYONE EVER OBSERVED YOU STOP BREATHING DURING YOUR SLEEP?
- BLOOD PRESSURE:** DO YOU HAVE OR ARE YOU BEING TREATED FOR HIGH BLOOD PRESSURE?
- BODY MASS INDEX:** DO YOU WEIGHT MORE FOR YOUR HEIGHT THAN IS SHOWN IN THE TABLE TO THE RIGHT?
- AGE:** ARE YOU OLDER THAN FIFTY YEARS?
- NECK SIZE:** DOES YOUR NECK MEASURE MORE THAN 15¼” AROUND?
- GENDER:** ARE YOU MALE?

Question: Are three or more of the above statements true for you?
If yes, you are at high risk for sleep apnea.

HEIGHT	WEIGHT
4’10”	167
4’11”	173
5’0”	179
5’1”	185
5’2”	191
5’3”	197
5’4”	204
5’5”	210
5’6”	216
5’7”	223
5’8”	230
5’9”	237
5’10”	243
5’11”	250
6’0”	258
6’1”	265
6’2”	272
6’3”	279
6’4”	287
6’5”	295

HEIGHTS/WEIGHTS ABOVE CORRESPOND TO A BMI OF 35.

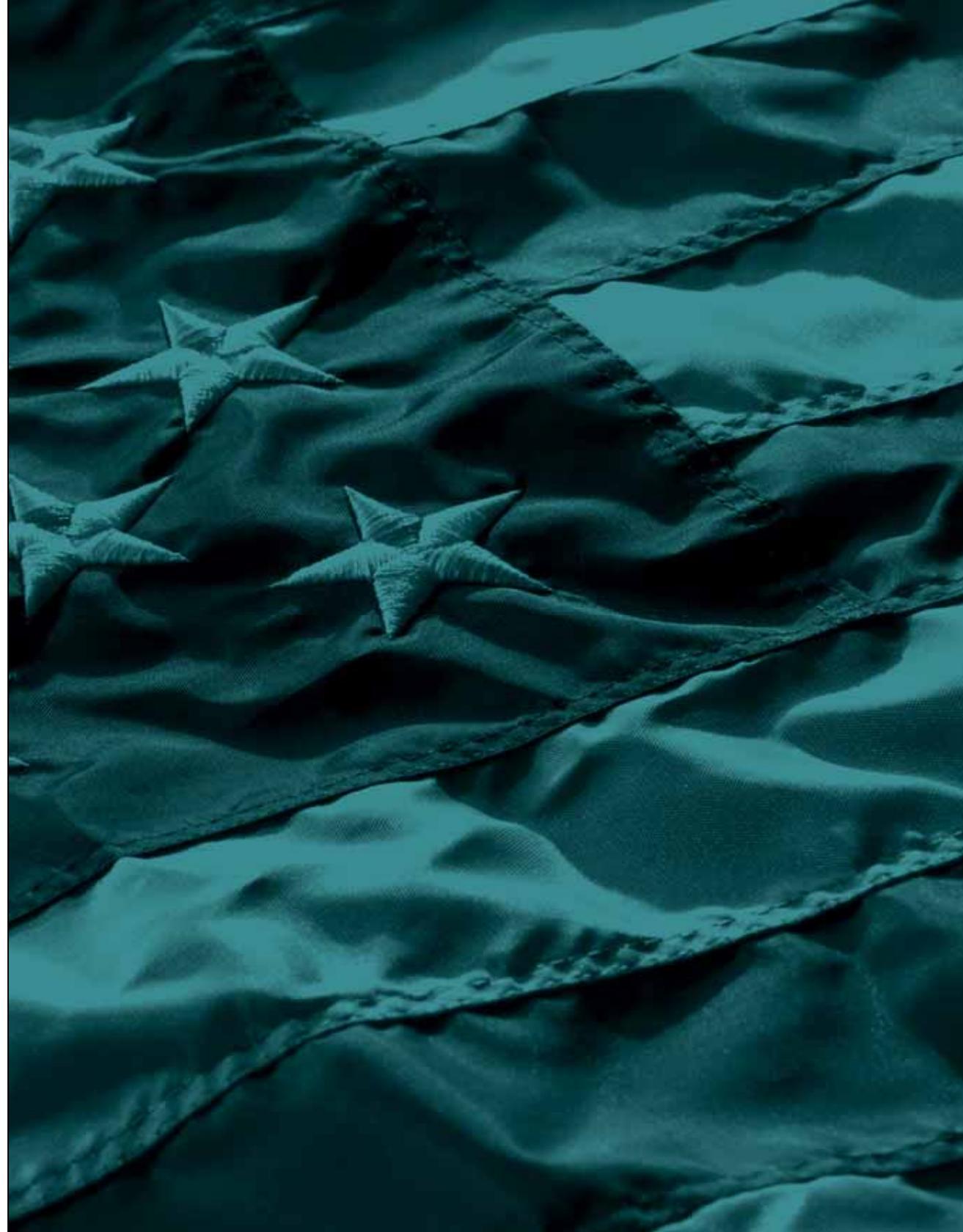
ASSESSMENT 2: GENERAL SLEEP PROBLEMS

The Epworth Sleepiness Scale is a tool designed by sleep researchers to assess how rested someone feels during the day. Your score on this scale reflects your quality of sleep the previous night, or the past several nights, and this helps to determine whether you should act to improve your sleep.

Instructions: How likely are you to doze off or fall asleep in the situations described below, in contrast to just feeling tired? Think about your normal tendencies. Even if you have not done some of the activities recently, try to imagine how you would probably react. Use the following scale to choose the most appropriate number for each situation

CHANCE OF DOSING WHILE:	NEVER ←	SLIGHT	MODERATE	HIGH →
SITTING AND READING	0	1	2	3
WATCHING TV	0	1	2	3
SITTING, INACTIVE IN A PUBLIC PLACE (E.G. A THEATRE OR A MEETING)	0	1	2	3
AS A PASSENGER IN A CAR FOR AN HOUR WITHOUT A BREAK	0	1	2	3
LYING DOWN TO REST IN THE AFTERNOON WHEN CIRCUMSTANCES PERMIT	0	1	2	3
SITTING AND TALKING TO SOMEONE	0	1	2	3
SITTING QUIETLY AFTER A LUNCH WITHOUT ALCOHOL	0	1	2	3
IN A CAR, WHILE STOPPED FOR A FEW MINUTES IN TRAFFIC	0	1	2	3
TOTAL SCORE:				

Scoring guide: If you score between 0-10, you are in the normal range, 10-12 you are borderline. A score of 12-24 may indicate you are sleep deprived.



SLEEP, PTSD, AND NIGHTMARES

Sleep problems are common among service members and veterans with post-traumatic stress disorder (PTSD). An obvious reason is that PTSD can heighten emotions, which in turn makes it hard to calm down and sleep. But perhaps most critical is the association between PTSD and nightmares, especially in combat veterans. According to Dr. Laura Gibson, nightmares are seen in approximately 60% of individuals with PTSD. While not all combat veterans with PTSD have nightmares, almost all combat veterans with severe nightmares have PTSD (Neylan, 1998). When nightmares occur as a part of PTSD, they tend to include the original threatening or horrifying set of circumstances that was involved during the traumatic event. In the case of combat this could involve encounters with the enemy and threats to yourself or members of your unit.

Nightmares can create a fear of falling asleep, which in turn prompts sleep avoidance, sleep deprivation, and other problems. Fortunately, there are a number of therapies emerging for nightmares, some of which involve mental exercises and some of which involve medications. Prazosin is considered by some to be among the more promising medications being evaluated. Prazosin was originally used for the treatment of high blood pressure, but it's now recognized that this drug can help treat severe nightmares in people with PTSD symptoms.

Veterans have been treated successfully with Prazocin at Seattle's VA Puget Sound Health Care System (VAPSHCS) for sleep disturbance related to PTSD. If you are having significant problems with nightmares you should talk to your physician about treatment options that are available to you.

INSOMNIA

Insomnia is probably the best known type of sleep disorder. Insomnia is defined as the inability to fall asleep at all, or the inability to stay asleep. While it is not unusual to have trouble sleeping for short periods of time, insomnia is considered a chronic condition if it occurs on most nights of the week for several weeks at a time. If you suffer from insomnia then it is important that you seek medical advice.

DID YOU KNOW?

“Shattered” was a reality competition program televised in England in 2004.

Ten contestants agreed to go without sleep for seven days while their actions were constantly monitored. Over the seven days the ten housemates had to endure daily performance testing and a variety of challenges. They were competing for a potential prize fund of over \$150,000, though, at any point, if a contestant closed his or her eyes for over 10 seconds, then \$1,500 was deducted from the prize fund.

To ensure the contestants' safety, they were allowed to sleep an hour per day. Without this, the show would probably have been deemed too dangerous and damaging to the health of those involved.

During the contest hallucinations and strange behavior were common. One contestant became convinced that he was the Prime Minister of Australia and he also thought he was appearing on an Australian soap opera. Another contestant got angry when the others refused to put on their “Japanese armor” and play with an imaginary ball. Two contestants were convinced that someone stole their clothing, and another thought she was in a subway station.

The eventual winner was a female police trainee who endured 178 hours of sleep deprivation.

SLEEP “TUNE-UP?” STRATEGIES FOR IMPROVING SLEEP

If you scored in the “abnormal sleepiness” range on the Epworth Sleepiness Scale but don’t have apnea or frequent nightmares, there are many tips and techniques available for healthy sleep. The next section includes activities to identify your unique sleep obstacles, and tools to monitor your progress. We’ll focus on four key areas known to affect sleep:

1. Behavioral
2. Physical
3. Psychological
4. Environmental

BEHAVIORAL

Prioritization and schedule

Perhaps the most important action to take when experiencing poor sleep is to change your priorities. Oftentimes sleep is the first thing to be sacrificed when you are juggling a busy schedule. You need to make a conscious decision to place sleep at the top of your list of priorities and establish a schedule that allows you to log a healthy amount of sleep (seven to eight hours/night). This will increase your productivity during waking hours. Also, if you can, try to maintain a consistent nighttime schedule. Repetition trains your brain to recognize when it’s time for sleeping.

Nighttime activities

Creating a set schedule can also help you avoid nighttime activities that hinder sleep. In the one to two hours prior to your set sleeping time, do not schedule any stimulating activities such as exercise, sporting events, or playing video games.

Gaming and sleep

As strange as it sounds, there have been multiple reports of young, healthy people dying after staying awake for days playing video games. In 2005, a 28-year-old man in South Korea died from complications related to exhaustion after playing one game for 50 consecutive hours with only a few bathroom breaks. While this is an extreme example, playing an exciting game can make sleep seem unimportant. But playing video games at night can affect your sleep in more ways than just postponing the time you go to bed. Researchers in Japan found that people who played stimulating video games had an increased heart rate and a decline in sleep-related brain waves compared with those who played non-stimulating games. These symptoms can prevent you from reaching the deepest, most therapeutic stages of sleep.

Caffeine

Most people know to avoid caffeinated foods and beverages such as chocolate, soda, coffee, and tea prior to sleeping, but few realize how long the effects of caffeine can last. Depending on the size of the dose and tolerance of the individual, caffeine can stay in your body for nearly an entire day and keep your heart rate elevated. Along with keeping you alert, caffeine also increases production of stomach acid and urine, potentially upsetting your stomach and/or causing you to urinate frequently during the night. Try to avoid consuming caffeinated foods or beverages for at least five to seven hours prior to sleeping.

If you are in the habit of drinking caffeinated beverages throughout the day, try slowly cutting back by diluting the caffeine content. Ask for half-caff coffee or add extra water or milk to your drink. Also, pay attention to the contents of any over-the-counter medication you may be taking. Some drugs, such as those sold to relieve headaches (i.e., Excedrin) or symptoms of premenstrual syndrome (i.e., Pamprin) contain caffeine.

DID YOU KNOW?

After five nights of partial sleep deprivation, three drinks will have the same effect on your body as six drinks would when you've slept enough.

Reducing energy drink consumption

Sales of energy drinks at military bases have increased dramatically in the past ten years. Army and Air Force Exchange Service (AAFES), the company that runs the military grocery stores, reported that Soldiers, Airmen, Marines, and Sailors picked up nearly 4,000,000 Monster energy drinks and over 1,000,000 cans of Red Bull during 2008. In 2011, Monster Energy beat out Mountain Dew as the AAFES top-selling cold beverage worldwide.

Since caffeine is the main active ingredient in energy drinks, there is little doubt that such drinks help some service members maintain alertness during work shifts. However, the negative effects on sleep (and performance) can be significant. For example, a survey of service members deployed to Afghanistan in 2010 indicated that those who drank three or more drinks a day were also more likely to report sleep disruption and were more likely to fall asleep during briefings or during guard duty. High caffeine intake may lead to a cycle of sleep disruption, as daytime fatigue leads to more caffeine intake, which leads to more sleep disruption.

If you are having problems with falling asleep at night or with the quality of your sleep, one of the simplest fixes may be to monitor the level of caffeine you are consuming through energy drinks (and, of course, coffee) and experiment with reducing your intake.

Meal size and content

Eating spicy foods before going to bed can reduce the quality of your sleep. Indigestion can make you uncomfortable or prevent you from entering the deeper stages of sleep. The same effects can occur after consuming very large meals. Meals with high sugar content can act like a stimulant, also preventing deep sleep.

PHYSICAL

Physical illness

Many common illnesses, such as colds, disrupt sleep. If you have nasal congestion at night, try propping yourself up on a few extra pillows to keep the fluid from settling in your nasal passages. You may benefit from a drowsiness-inducing over-the-counter medication such as antihistamine, but be wary of taking decongestants containing pseudoephedrine, a known stimulant.

Pain

Sleep loss due to physical pain is difficult to manage. If you are suffering from chronic pain, speak with your doctor about nighttime pain management. If you are experiencing only a minor body ache, you may consider applying a heat or cold pack to the affected area, or taking an over-the-counter anti-inflammatory. Please refer to the Pain chapter of this workbook for more information.

PSYCHOLOGICAL

Negative judgements

Research has shown that many individuals who say they're under a lot of stress are predisposed to judge things negatively. For example, two people could experience the exact same situation, with one person getting upset and the other staying calm. Think of being on an airplane during a flight delay. Experienced flight attendants know that, while most people will stay calm, some will fly off the handle and needlessly provoke the flight attendants. If you tend to get annoyed by things that most people shrug off, it may be time to work on how you see things.

Repetitive thoughts

Have you ever had trouble falling asleep because you couldn't stop mentally replaying an event that took place during the day? If so, you're not alone. The act of incessantly thinking about a particular event is called repetitive thought or rumination, and we all do it on occasion. However, repetitive thinking can be especially harmful if it prevents you from sleeping. Even worse, it can paralyze your problem-solving skills, thereby increasing frustration and sleeplessness.

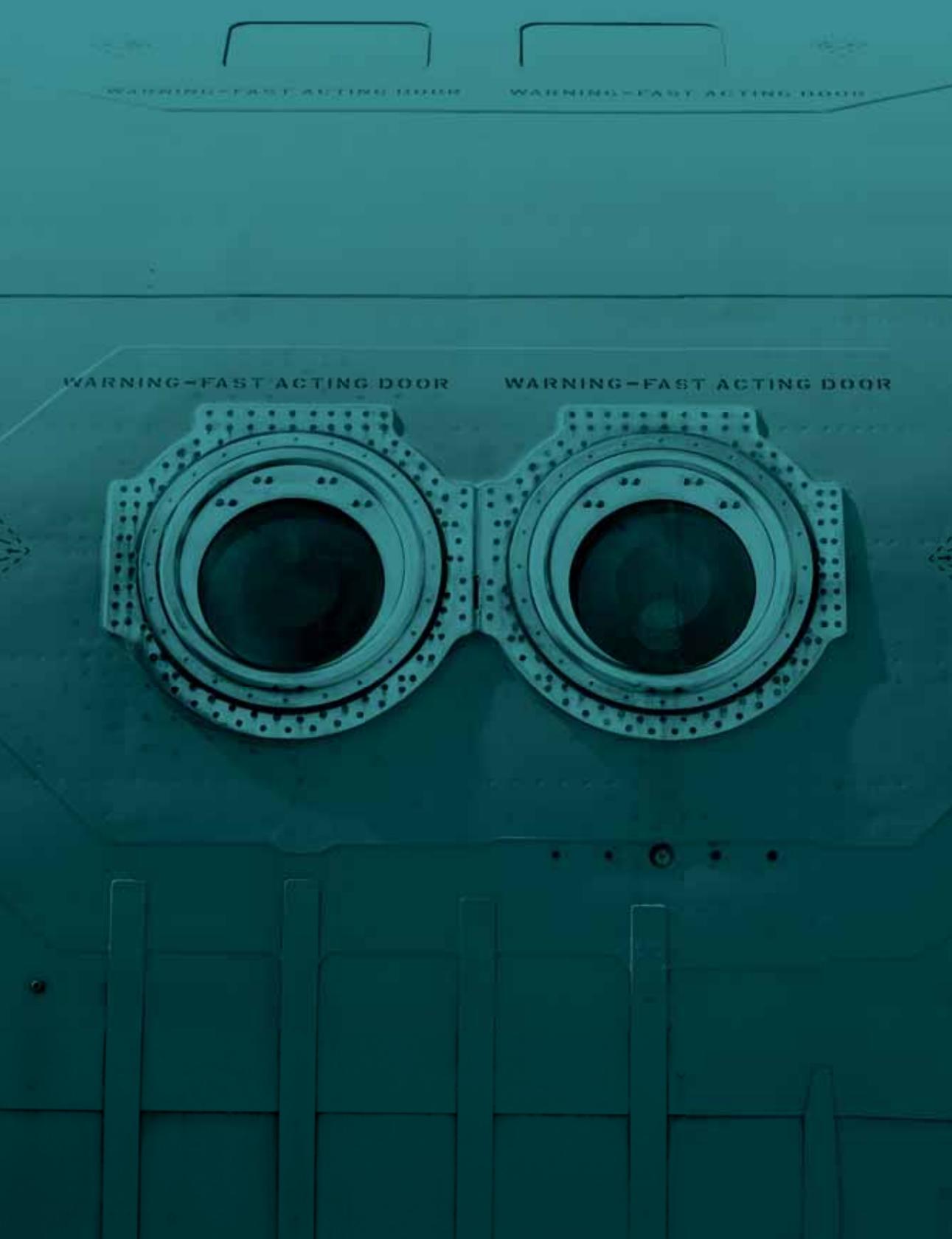
If you struggle with repetitive thinking, try the following tips. The first technique is diversion. Try to divert your mind by replacing your repetitive thoughts with something pleasant, such as a memory of a good thing that recently happened, or thoughts about a desirable event you anticipate in the future. The second technique is reappraisal. Ask yourself, "In the big picture, am I obsessing about things that aren't that big of a deal?" Try to step back from the situation for some perspective. Often what we fixate over doesn't actually affect our lives in the long run. If the first two strategies don't work, another strategy is problem solving. Start by asking yourself, "Is there a solution to this problem?" If there is, make a plan for how you will solve it. If there isn't, you should accept that there is nothing you can do and move on.

CASE STUDY: DANGERS OF 'DROWSY DRIVING'

One of the most dangerous side effects of poor sleep is "drowsy driving," or driving a car when you are overly tired. In 2010, a survey of 75,000 Americans found that 1 in every 20 adults reported dozing off while behind the wheel in the past month alone. Given this high number of adults driving while tired, it is not surprising that over 100,000 auto crashes annually are the result of drowsy driving (National Highway Traffic Safety Administration). Of these 100,000 reported crashes, over 70,000 resulted in injuries, and over 1,500 resulted in death. The number of crashes, injuries, and deaths from drowsy driving is actually thought to be much higher because not everyone admits to the police that they crashed after falling asleep at the wheel.

More facts about drowsy driving from drowsydriving.org:

- A study found that being awake for 24 hours produced impairment equal to having a blood alcohol concentration of .10, which would exceed the legal limit.
- People between the ages of 18-29 are by far the most likely to drive while drowsy.
- Men are nearly 20% more likely than women to drive when drowsy.
- Men are nearly twice as likely as women to fall asleep while driving.
- Adults who have children at home are more likely to drive drowsy than those without children.
- Shift workers are more likely to fall asleep at the wheel than those who work regular daytime hours.
- In 2003, the state of New Jersey enacted "Maggie's Law," which prohibits drivers from knowingly getting behind the wheel when they are impaired by lack of sleep. Other states are also considering adopting similar laws.



Breathing

Fortunately there are ways to relax and fall asleep even when you're anxious. Proper breathing is an important key to falling asleep, yet when we are stressed our breathing is more shallow and quick than normal. Try practicing a deep breathing exercise while in bed. Start by lying flat on your back with your eyes closed. Slowly breathe in through your nose to the count of four, hold to the count of three, and slowly exhale through your mouth to the count of five. Now inhale again and repeat the cycle several times until you feel calmer. This is the basic technique, though different people sometimes prefer to use other counts such as 4-7-8 instead of 4-3-5. You might want to try both types of counts and determine which feels the most calming. Whatever counts you choose, be sure to inhale with full, deep breaths that fill your chest.

Relaxing

Just as stress can change our breathing, stress can also cause us to unconsciously flex or clench our muscles. Therefore, you might add progressive muscle relaxation to your deep breathing. Progressive muscle relaxation is an exercise that allows you to relax each muscle group one by one until you release tension from your entire body. Here is a guide to walk you through this exercise.

Lie down in a comfortable place that is quiet with minimal distractions. Begin by taking several deep breaths, or even practicing deep breathing. When you feel ready, you can begin the muscle relaxation. Starting with your face and neck, tense your muscles tightly and hold the tension for 3-4 seconds. Then, with a slow exhale, completely release the tension and relax those muscles. Take several more deep breaths, focusing on keeping your head and neck relaxed. Once you feel those body parts are fully relaxed, move to the next body part, your chest and back. Clench those muscles, and then relax them. Slowly, repeat these steps through each muscle group in your body (i.e., arms, abdominals, legs, feet) until your whole body is relaxed. Remember, once you've moved on to your next body area you must remain relaxed in the previous areas.

Visualization

It may help to try a visualization exercise. While lying down with your eyes closed, imagine a place you find very relaxing, such as a deserted beach or a quiet hillside. Picture all the details of your surroundings until you can really feel yourself there. To complete the image, imagine the smell of the ocean or the grass as you slowly inhale and then deeply exhale.

Another method of reducing stress is to seek support; for more information on the importance of social support please see the Social Ties chapter.

ENVIRONMENTAL

Temperature

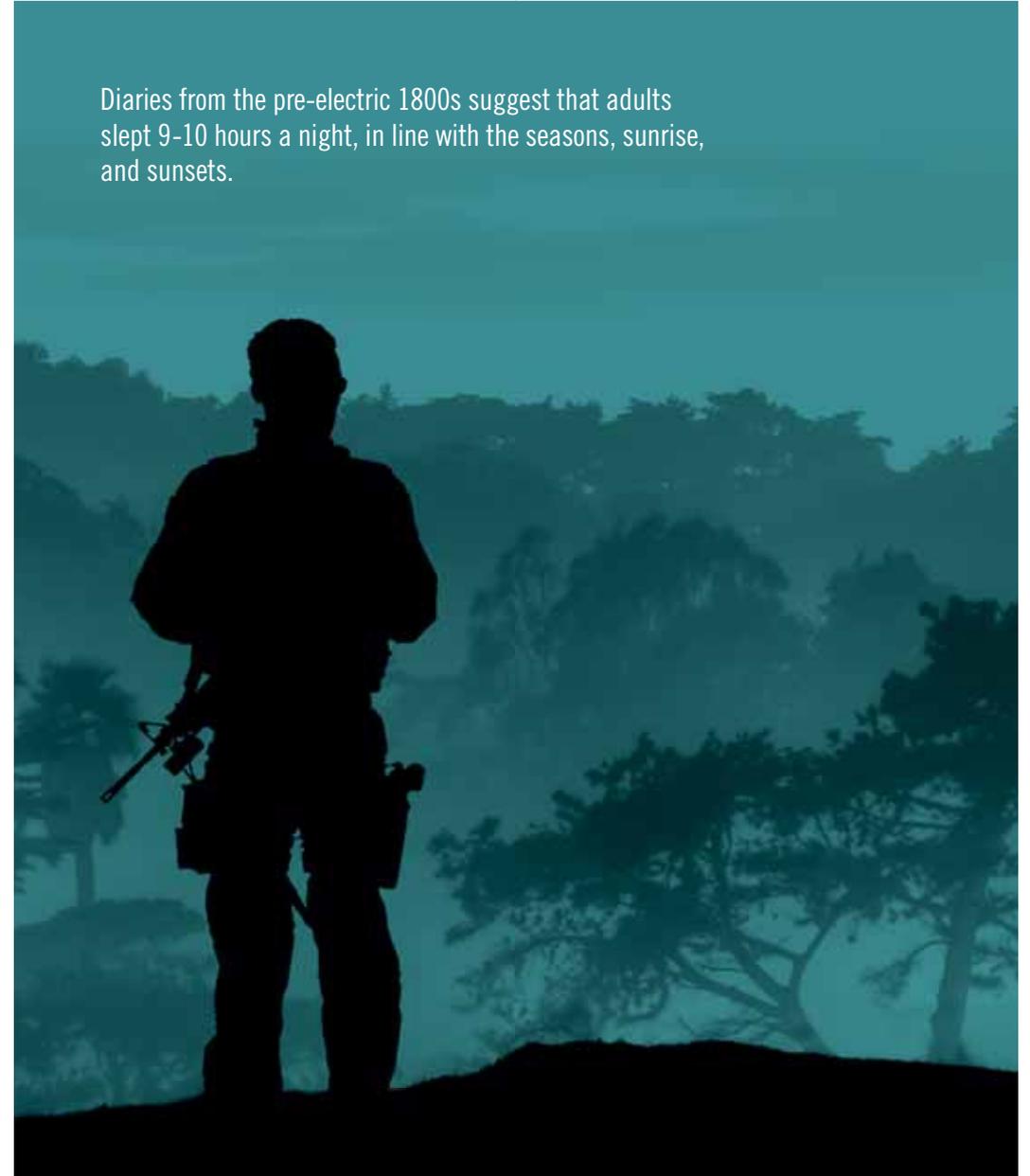
Did you know that while you sleep your core body temperature drops several degrees? This explains why you often awake covered with additional blankets—during the night you felt colder and pulled on extra layers. Because our bodies are so sensitive to temperature changes, room temperature can be an important factor if you are having trouble sleeping. Although everyone is different, research suggests that the optimal room temperature for good sleep is between 65 and 72 degrees, and not above 75 or below 54 degrees. Lowering the temperature of your bedroom can stimulate your body's drop in temperature, signaling it that it is time to sleep. If you are having trouble falling asleep, try setting the thermostat a few degrees lower than normal, or turning on an extra fan. Also, be sure the bedding you are using is not too thick or too thin for the season.

Light

Our brains are wired to match the sun; we are supposed to be awake while the sun is out and asleep when it is not. Sleeping in a room with too much light confuses the brain by signaling that it is not nighttime. However, over the last 50 years there has been a surge in exposure to artificial light at night and researchers are becoming concerned about the consequences. For example, scientists at Ohio State University have cautioned that sleeping in a room with dim artificial light (such as the glow of a television or a computer screen) may lead to mood disorders or depressive symptoms and may also increase risk for serious diseases such as cancer. Try to make your bedroom as dark as possible at night. Use blackout curtains, fill in any gaps under the doors that may let in light, and try not to fall asleep with the lights on.

DID YOU KNOW?

Diaries from the pre-electric 1800s suggest that adults slept 9-10 hours a night, in line with the seasons, sunrise, and sunsets.



CASE STUDY: SLEEP IN NATURE

For reasons that aren't yet understood, almost all species require something resembling sleep. It might shock some people to realize that even some insects nap, including certain wasps and ants. In fact, queen fire ants sleep deeply for an average of nine hours every day, while worker ants sleep just half as much and get to rest by taking hundreds of short naps. Also, fruit flies show sleep patterns that are similar to humans in that, if they are sleep deprived, they will sleep longer to recover.

The form that sleep takes in nature is as diverse as nature itself. Sea creatures that require air, like penguins and sea turtles, must wake regularly to surface and breathe. Dolphins, which also require air, can slumber with just half of their brains "asleep." They can have the brain waves of deep sleep functioning in just one hemisphere, while the other half remains awake. Though many people believe that sharks never sleep, the reality is unknown. Sharks certainly tend to keep moving, but the nerve centers that co-ordinate swimming movements in sharks are in the spinal cord rather than the brain. Thus, it is possible for an unconscious shark to swim.

Horses and cows can sleep standing up, but they don't experience full sleep unless they lie down. Giraffes can go weeks without napping. Bats sleep upside down for several reasons: It makes them less obvious prey, and it allows them to take off at any moment should any threat emerge. Bats must fall into flying, because their wings aren't strong enough for them to alight from a standing position. An albatross can sleep while it flies.

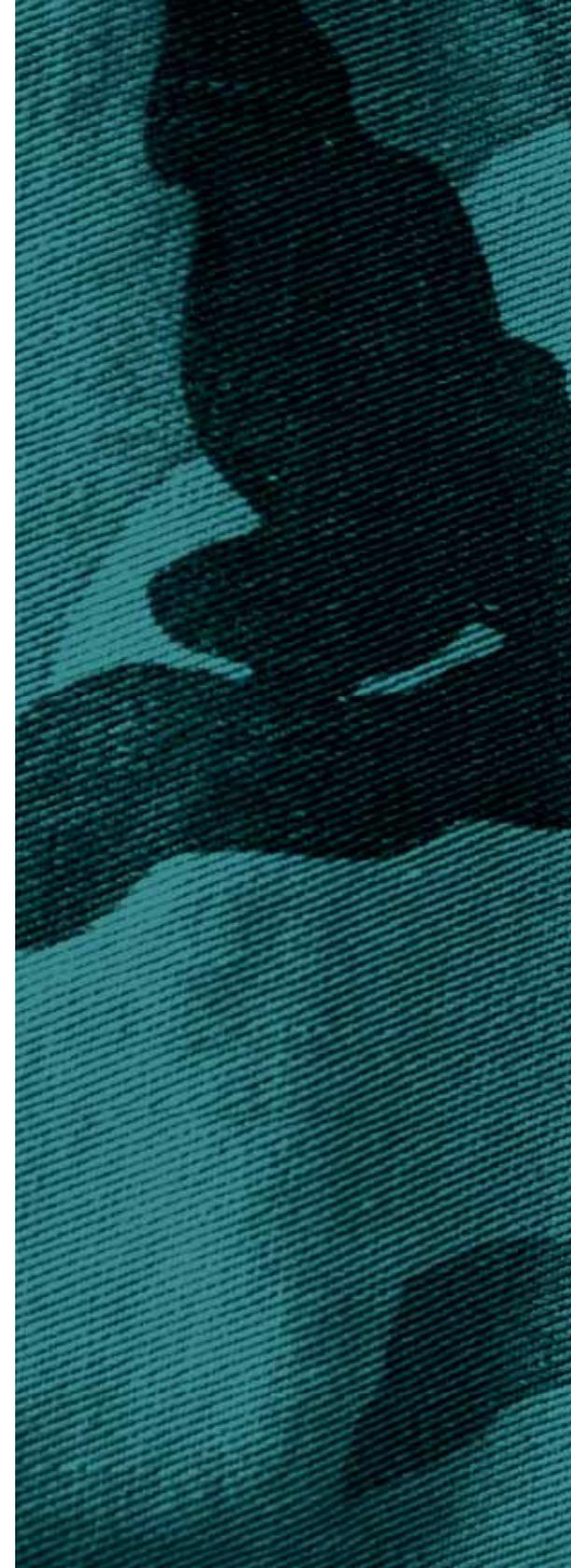
For reasons such as these, sleep is one of the most fascinating of all research topics.

Sleeping surface

Spine support can play a huge role in sleep quality. Ideally, you spend seven to eight hours at a time lying flat in your bed. The wrong type of mattress and pillows can make sleep miserable if it does not properly support your head, neck, and back. Experts recommend lying down for at least 15 minutes on a mattress you are considering purchasing, because in that short period you may be able to tell if it is a fit for your body. If you don't have money to buy a new mattress, try purchasing a mattress topper to adjust the firmness. Also, change your pillows regularly. Pillows can become flat and offer less head and neck support.

Bedroom

An important thing to recognize is how easily we learn to associate certain places with certain behaviors. For example, if you sit in your bed to watch TV or do work, your mind will associate the bed with daytime activities. Train yourself to recognize that bedrooms are for sleeping and sex, not for watching television, surfing the Internet, or doing work.



ACTIVITY 1: IDENTIFYING BARRIERS TO SLEEP

It is important to determine why you are waking up at night or having restless sleep.

Instructions: Use the following form to record reasons for poor sleep.

	SUNDAY		MONDAY		TUESDAY	
I HAD TROUBLE FALLING ASLEEP.	YES	NO	YES	NO	YES	NO
REASONS I COULD NOT FALL ASLEEP.						
I WOKE UP DURING THE NIGHT.	YES	NO	YES	NO	YES	NO
REASONS I WOKE UP DURING THE NIGHT.						

WEDNESDAY		THURSDAY		FRIDAY		SATURDAY	
YES	NO	YES	NO	YES	NO	YES	NO
YES	NO	YES	NO	YES	NO	YES	NO

ACTIVITY 2: GOAL SETTING FOR SLEEP

Now that Activity 1 has helped you identify possible reasons why you are having trouble sleeping, you can make a plan to fix them. Goal setting is a useful way to change your behavior.

Instructions: Using the behaviors and factors you identified, come up with goals that will change these issues. For example, if you discovered that you are drinking too much caffeine too close to your bedtime, develop a goal to help change that behavior.

BARRIER TO SLEEP	GOAL FOR IMPROVEMENT
BARRIER TO SLEEP	GOAL FOR IMPROVEMENT
BARRIER TO SLEEP	GOAL FOR IMPROVEMENT

BARRIER TO SLEEP	GOAL FOR IMPROVEMENT
BARRIER TO SLEEP	GOAL FOR IMPROVEMENT
BARRIER TO SLEEP	GOAL FOR IMPROVEMENT
BARRIER TO SLEEP	GOAL FOR IMPROVEMENT

CONSEQUENCES OF SLEEP LOSS

ETHICS

Moral judgment, or the ability to make decisions based on your usual moral standards, is affected by sleep deprivation. Individuals are more likely to make decisions that are out of character for them and engage in unethical behavior such as cheating when they are lacking sleep. Though no one knows for certain why this relationship exists, there is some scientific evidence to suggest that when sleep deprived, our self-control is diminished, making it harder to resist temptation.

HEALTH BENEFITS OF SLEEP

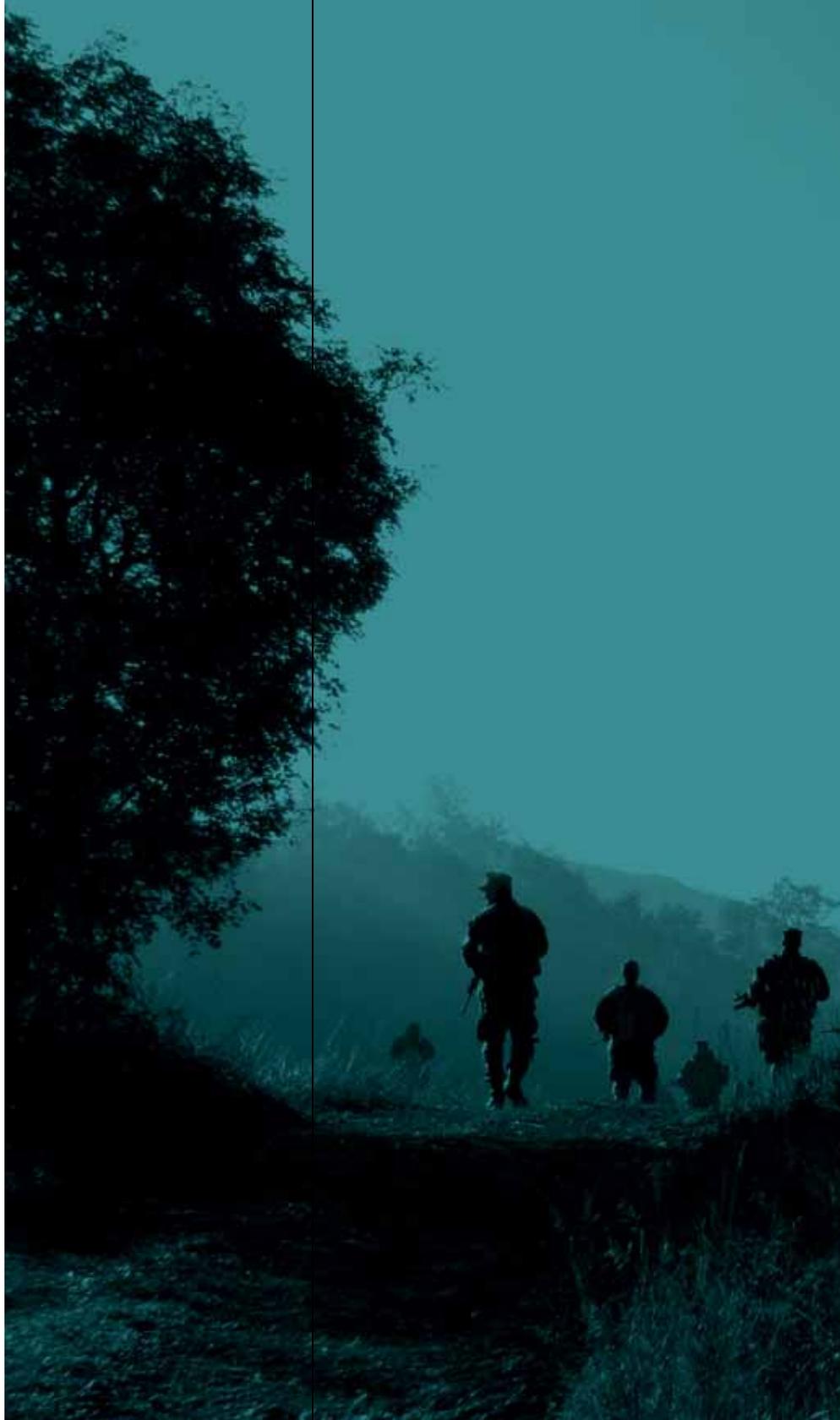
Aside from eating, sleeping is the single most important behavior for health. In fact, animal research suggests that most of us would die more quickly from sleep starvation than from food starvation. There are many positive effects of sleep on an individual's health. While you sleep, your brain and body work to repair injuries and illnesses. If your sleep is insufficient, your body will not maintain optimal health. Therefore, chronic sleep loss increases risk for a number of physical health concerns.

Less illness and disease

Sleep helps strengthen the immune system, which is the network of cells, tissues, and organs that work together to defend the body against attacks by germs like bacteria, parasites, and fungi. Sleep-deprived individuals cannot fight off threats to their immune systems as well as those getting sufficient sleep, putting them at greater risk for illness.

Less weight gain

Humans break down food through metabolic processes, which are regulated by the production and release of certain hormones. Our bodies also release hormones that tell us when we are full or hungry. Sleep deprivation affects production of these hormones, slowing our metabolism and increasing the production of hormones that trigger hunger. This combination can cause weight gain and obesity.



LONG-TERM HEALTH EFFECTS OF CHRONIC SLEEP LOSS

DIABETES

Sleep-deprived individuals have increased levels of hemoglobin A1C, or HbA1C, which is an indicator of blood sugar control. A high level of HbA1C is associated with Type 1 Diabetes.

CARDIOVASCULAR HEALTH

Numerous research studies have found that individuals who report disordered sleeping habits have higher rates of hypertension, stroke, heart disease, and irregular heartbeats. It is not known exactly why this occurs, but scientists believe sleep deprivation can trigger internal inflammation that damages tissues and advances heart disease.

PERFORMANCE

Without adequate sleep, you are at risk for performing poorly on physical and mental tasks.

PHYSICAL PERFORMANCE

Individuals who get the recommended levels of sleep perform better in physical sports and on manual tasks than sleep-deprived individuals. This is not only due to overall muscle fatigue, but also because sleep-deprivation harms dexterity, or control over the movement of the hands. Researchers from the Stanford University School of Medicine studied the Stanford men's basketball team and found that players who intentionally extended their nightly sleeping time had greater shooting accuracy and faster sprint times than those who did not.

COGNITIVE PERFORMANCE

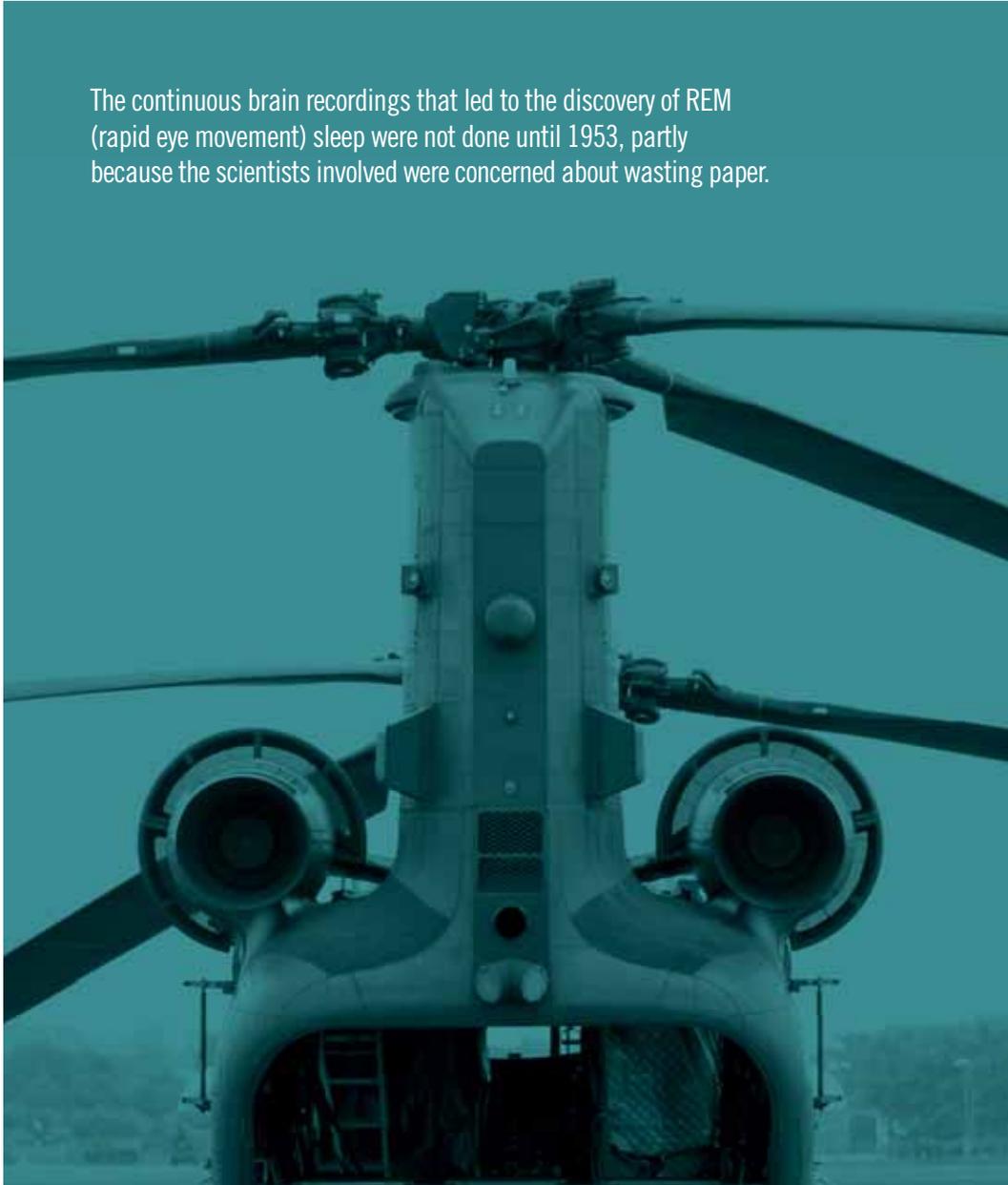
Sleep deprivation can worsen your performance on tasks that require memory, reasoning, or decision making. During deep sleep, the brain commits new information acquired during the day to memory. If you are sleep deprived, you are less likely to be able to recall new information or draw information from memory to help you make correct decisions.

It can be helpful to know about the biological process of sleep to understand why it is so



DID YOU KNOW?

The continuous brain recordings that led to the discovery of REM (rapid eye movement) sleep were not done until 1953, partly because the scientists involved were concerned about wasting paper.



UNDERSTANDING THE SLEEP CYCLE

important to your health. Though it may seem like a simple process, sleep is actually a complicated cycle. All humans experience the same five sleep stages that cycle approximately five times throughout the night. The stages of sleep range from the lightest to deepest sleep.

SLEEP STAGES



Your body experiences the greatest benefits when you are in the deepest stages of sleep. During these stages, your muscles relax completely, allowing blood flow through your body to increase, which helps to repair your tissues. It is also during these deep phases of sleep that energy is restored to your brain and body.

REM PHASES

	STAGE	DURATION (MIN)	CHARACTERISTICS
NON-REM SLEEP 75% OF NIGHT	1 VERY LIGHT SLEEP	1-7	Very light sleep, still somewhat aware of surroundings
	2 LIGHT SLEEP	10-25	Light sleep; person becomes disengaged from surroundings; breathing and heart rate are normal; body temperature begins to drop
	3-4 DEEP SLEEP	20-40	Deepest sleep; Blood pressure drops, breathing and heart rate slow; muscles relax and blood flow increases; tissue growth and repair occurs; hormones are released
REM SLEEP 25% OF NIGHT	REM	15-30	Energy is restored to brain and body; muscle functioning ceases, dreams occur

CHAPTER 1 RESOURCES

Afterdeployment.org. Families & friendships.

<http://afterdeployment.t2.health.mil/topics-families-friendships>

Mayo Clinic. Friendships: Enrich your life and improve your health.

<http://www.mayoclinic.com/health/friendships/MH00125>

Military One Source. Relationship health & family wellness.

<http://www.militaryonesource.mil/health-wellness>

Real Warriors Program. Support & resources for single service members.

<http://www.realwarriors.net/active/treatment/militarysingles.php>

U.S. Department of Health and Human Services (DHHS). Making and Keeping Friends: A Self-Help Guide.

<http://store.samhsa.gov/shin/content//SMA-3716/SMA-3716.pdf>

CHAPTER 1 REFERENCES

Allen, K., & Blascovich, J. (1996). The value of service dogs for people with severe ambulatory disabilities. *Journal of the American Medical Association*, 275, 1001-1006.

Allen, K., Blascovich, J., & Mendes, W. B. (2002). Cardiovascular reactivity and the presence of pets, friends, and spouses: The truth about cats and dogs. *Psychosomatic Medicine*, 64, 727-739.

Associated Press (2010, April 28). The AP-Petside.com poll. <http://surveys.ap.org>

Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Review*, 117, 497-529.

Biswas-Diener, R., & Diener, E. (2001). Making the best of a bad situation: Satisfaction in the slums of Calcutta. *Social Indicators Research*, 55, 329-352.

Cacioppo, J.T., Hughes, M.E., Waite, L.J., Hawkley, L.C., & Thisted, R.A. (2006). Loneliness as a specific risk factor for depressive symptoms: Cross sectional and longitudinal analyses. *Psychology and Aging*, 21, 140-151.

Centers for Disease Control and Prevention. (2010). Health benefits of pets. www.cdc.gov/healthypets/health_benefits.htm

Christakis, N.A., & Fowler, J.H. (2009). *Connected: The Surprising Power of Our Social Networks and How They Shape Our Lives*. New York: Little, Brown, and Company.

Cohen, S. (2004). Social relationships and health. *American Psychologist*, 59, 676-684.

Cohen, S., & Wills, T.A. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin*, 98, 310-357.

Cutrona, C.E. (1986). Objective determinants of perceived social support. *Journal of Personality and Social Psychology*, 50,349-355.

Dalgard, O.S., Bjork, S., & Tambs, K. (1995). Social support, negative life events, and mental health. *British Journal of Psychiatry*, 166, 29-34.

Diener, E., & Seligman, M.E. (2002). Very happy people. *Psychological Science*, 13, 81-84.

CHAPTER 1 REFERENCES

- Etzion, D. (1984). Moderating effect of social support on the stress-burnout relationship. *Journal of Applied Psychology, 69*, 615-622.
- Friedmann, E., & Thomas, S.A. (1995). Pet ownership, social support, and one-year survival after acute myocardial infarction in the Cardiac Arrhythmia Suppression Trial (CAST). *American Journal of Cardiology, 76*, 1213-1217.
- Griffin J (2010) The lonely society? London: Mental Health Foundation.
http://www.mentalhealth.org.uk/content/assets/PDF/publications/the_lonely_society_report.pdf
- Holt-Lunstad, J., Smith, T.B., & Layton, J.B. (2010). Social relationships and mortality risk: A meta-analytic review. *PLoS Medicine, 7*, e1000316.
- Kiecolt-Glaser, J.K., Gouin, J., & Hantsoo, L. (2010). Close relationships, inflammation, and health. *Neuroscience and Biobehavioral Reviews, 35*, 33-38.
- Mayo Clinic (2010). Social support: Tap this tool to combat stress.
<http://www.mayoclinic.com/health/social-support/SR00033>
- McConnell, A.R., Brown, C.M., Shoda, T.M., Stayton, L.E., & Martin, C.E. (2011). Friends with benefits: On the positive consequences of pet ownership. *Journal of Personality and Social Psychology, 101*, 1239-1252.
- McPherson, M., Smith-Lovin, L., & Bradshears, M.E. (2006). Social isolation in America: Changes in core discussion networks over two decades. *American Sociological Review, 71*, 353-375.
- Miller, G. (2011). Why loneliness is hazardous to your health. *Science, 331*, 138-140.
- Newman, S. (2010). Why it's hard for adults to make new friends. *Psychology Today*.
<http://www.psychologytoday.com/blog/apologies-freud/201010/why-its-hard-adults-make-new-friends>
- Nickerson, C., Schwarz, B., Diener, E., & Kahneman, D. (2003). Zeroing on the dark side of the American dream: A closer look at the negative consequences of the goal for financial success. *Psychological Science, 14*, 531-536.
- Oliver, L.W., Harman, J., Hoover, E., Hayes, S., & Pandhi, N.A. (1999). A quantitative integration of the military cohesion literature. *Military Psychology, 11*, 57-83.

CHAPTER 1 REFERENCES

- Pietrzak, R.H., Johnson, D.C., Goldstein, M.B., Malley, J.C., Rivers, A.J., Morgan, C.A., Southwick, S.M. (2010). Psychosocial buffers in traumatic stress, depressive symptoms, and psychosocial difficulties in veterans of Operations Enduring Freedom and Iraqi Freedom: The role of resilience unit support, and postdeployment social support. *Journal of Affective Disorders, 120*, 188-192.
- Putnam, R.D. (2000). *Bowling Alone: The Collapse and Revival of American Community*. New York: Simon and Schuster.
- Rona, R.J., Hooper, R., Jones, M., Iversen, A.C., Hull, L., Murphy, D., Wessely, S (2009). The contribution of prior psychological symptoms and combat exposure to post Iraq deployment mental health in the UK military. *Journal of Traumatic Stress, 22*, 11-19.
- Seeman, T.E. (2000). Health promoting effects of friends and family on health outcomes in older adults. *American Journal of Health Promotion, 14*, 362-370.
- Thoits, P.A. (1995). Social support as coping assistance. *Journal of Consulting and Clinical Psychology, 54*, 416-423.
- Thorsteinsson, E.B., & James, J.E. (1999). A meta-analysis of the effects of experimental manipulations of social support during laboratory stress. *Psychology and Health, 14*, 869-886.
- Umberson, D., & Montez, J. (2010). Social relationships and health: A flashpoint for health policy. *Journal of Health and Social Behavior, 51*, S54-S66.
- Uchino, B.N. (2006). Social support and health: A review of physiological processes potentially underlying links to disease outcomes. *Journal of Behavioral Medicine, 29*, 377-387.
- Uchino, B.N. (2009). Understanding the links between social support and physical health. *Perspectives on Psychological Science, 4*, 236-255.

CHAPTER 2 RESOURCES

Afterdeployment.org. Anger management workshop.
<http://afterdeployment.t2.health.mil/topics-anger#workshops>

American Psychological Association. Online brochure about controlling anger.
<http://www.apa.org/topics/anger/control.aspx>

Gentry, W.D. (2007). *Anger Management for Dummies*. Wiley Pub., Incorporated.

Hanh T.N. (1987) *The Miracle of Mindfulness: An Introduction to the Practice of Meditation*. Boston: Beacon Press.

Kassinove, H., & Tafrate, R.C. (2002). *Anger Management: The Complete Treatment Guidebook for Practitioners*. Impact Publishers.

Make the Connection. A site with a variety of resources for active duty and veterans.
<http://maketheconnection.net/symptoms/anger-irritability/>

Mayo Foundation for Medical Education and Research. Offers information on anger management.
<http://www.mayoclinic.com/health/anger-management/MY00689>

Mayo Clinic Staff. Video: Need to relax? Take a break to meditate.
<http://www.mayoclinic.com/health/meditation/MM00623>

National Center for Post-traumatic Stress Disorder. Includes a summary about anger and trauma as well as other topics such as coping.
<http://www.ptsd.va.gov/public/problems/anger-and-trauma.asp>

National Institutes of Health. Managing your anger.
www.ors.od.nih.gov/sr/dohs/EAP

CHAPTER 2 REFERENCES

Beckham, J.C., Feldman, M.E., Kirby, A.C., Hertzberg, M.A., & Moore, S.D. (1997). Interpersonal violence and its correlates in Vietnam veterans with chronic post-traumatic stress disorder. *Journal of Clinical Psychology*, 53, 859-869.

Berkowitz, L. (1989). Frustration-aggression hypothesis: examination and reformulation. *Psychological Bulletin*, 106, 59.

Chemtob, C.M., Novaco, R.W., Hamada, R.S., Gross, D.M., & Smith, G. (1997). Anger regulation deficits in combat-related post-traumatic stress disorder. *Journal of Traumatic Stress*, 10, 17-36.

Chida, Y., & Steptoe, A. (2009). The Association of Anger and Hostility With Future Coronary Heart Disease A Meta-Analytic Review of Prospective Evidence. *Journal of the American College of Cardiology*, 53, 936-946.

Follingstad, D.R. (2009). The Impact of Psychological Aggression on Women's Mental Health and Behavior The Status of the Field. *Trauma, Violence, & Abuse*, 10, 271-289.

Iyer, P., Korin, M.R., Higginbotham, L., & Davidson, K. W. (2010). Anger, anger expression, and health. *Handbook of Health Psychology and Behavioral Medicine*, 120-132.

Johnson, S.C., & Beckham, J.C. (2011). Anger, aggression, and violence. *Treating PTSD in Military Personnel: A Clinical Handbook*, 305.

McCarroll, J.E. (2006). Psychological Aggression and Psychological Abuse: Is There a Difference? *Family Violence Research, Assessment and Interventions: Looking Back, Looking Ahead*, 25, 218.

McMurrin, M., Egan, V., Cusens, B., Van Den Bree, M., Austin, E., & Charlesworth, P. (2006). The alcohol-related aggression questionnaire. *Addiction Research & Theory*, 14, 323-343.

Morimoto, Y., & Sharma, A. (2004). Long-term outcomes of verbal aggression: The role of protective factors. *Journal of Emotional Abuse*, 4, 71-99.

Murphy, C.M., & O'Leary, K.D. (1989). Psychological aggression predicts physical aggression in early marriage. *Journal of Consulting and Clinical Psychology*, 57, 579.

CHAPTER 2 REFERENCES

Painuly, N., Sharan, P., & Mattoo, S.K. (2005). Relationship of anger and anger attacks with depression. *European Archives of Psychiatry and Clinical Neuroscience*, 255, 215-222.

Room, R., & Rossow, I. (2001). The share of violence attributable to drinking. *Journal of Substance Use*, 6, 218-228.

Seligman, M.E. (2009). *What You Can Change... and What You Can't: The Complete Guide to Successful Self-Improvement*. Random House Digital, Inc.

CHAPTER 3 RESOURCES

Veterans in Pain Organization.
www.vetsinpain.org

Real Warriors Campaign. Four Tips for Successfully Managing Chronic Pain.
www.realwarriors.net/veterans/treatment/painmanagement.php

American Chronic Pain Association.
www.theacpa.org

National Institute of Neurological Disorders and Stroke. Chronic Pain Information Page.
www.ninds.nih.gov/disorders/chronic_pain/chronic_pain.htm

CHAPTER 3 REFERENCES

Armed Forces Surveillance Center: Absolute and relative morbidity burdens attributable to various illnesses and injuries, U.S. Armed Forces, 2012. *Medical Surveillance Monthly Report (MSMR)*. 2013 Apr; 19: 4-9. http://www.afhsc.mil/viewMSMR?file=2013/v20_n04.pdf

Bair, M.J., Robinson, R.L., Katon, W., & Kroenke, K. (2003). Depression and pain comorbidity: A literature review. *Archives of Internal Medicine*, 163, 2433-45.

Cameron, K.L., Hsiao, M.S., Owens, B.D., Burks, R., Svoboda, S.J. (2011). Incidence of physician-diagnosed osteoarthritis among active duty United States military service members. *Arthritis and Rheumatism*, 63, 2974-2982.

Centers for Disease Control and Prevention. (2010). Prevalence of doctor-diagnosed arthritis and arthritis-attributable activity limitation, United States, 2007-2009. *Morbidity and Mortality Weekly Report*, 59, 1261-1265. http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5939a1.htm?s_cid=mm5939a1_w

Centers for Disease Control and Prevention. (2011). Work-related musculoskeletal disorders (WMSD) prevention. Retrieved from <http://www.cdc.gov/workplacehealthpromotion/implementation/topics/disorders.html>

Collins J.J., Baase C.M., Sharda C.E., Ozminkowski R.J., Nicholson S., Billotti G.M., Turpin R.S., Olson M., Berger M.L. (2005). The assessment of chronic health conditions on work performance, absence, and total economic impact for employers. *Journal of Occupational and Environmental Medicine*, 47, 547-557.

Depression and Pain: hurting bodies and suffering minds often require the same treatment. (2004). *Harvard Mental Health Letter*. www.health.harvard.edu/newsweek/Depression_and_pain.htm

Elkins, Jensen, M.P., Patterson, D.R. (2007). Hypnotherapy for the management of chronic pain. *International Journal of Clinical and Experimental Hypnosis*, 53, 275-287.

Gaskin, D.J., Richard, P. (2012). The economic costs of pain in the United States. *Journal of Pain*, 13, 715-724.

CHAPTER 3 REFERENCES

Gironda, R.J., Clark, M.E., Massengale, J.P., & Walker, R.L. (2006). Pain among veterans of Operations Enduring Freedom and Iraqi Freedom. *Pain Medicine*, 7, 339-343.

Hardt, J., Jacobsen, C., Goldberg, J., Nickel, R., Buchwald, D. (2008). Prevalence of chronic pain in a representative sample in the United States. *Pain Medicine*, 9, 803-812.

Helmer, D.A., Chandler, H.K., Quigley, K.S., Blatt, M., Teichman, R., & Lange, G. (2009). Chronic widespread pain, mental health, and physical role function in OEF/OIF Veterans. *Pain Medicine*, 10, 1174-1182.

Hojsted, J., Sjogren, P. (2007). Addiction to opioids in chronic pain patients: A literature review. *European Journal of Pain*, 11, 490-518.

Johannes, C. B., Le, T. K., Zhou, X., Johnston, J.A., & Dworkin, R. H. (2010). The prevalence of chronic pain in United States adults: results of an internet-based survey. *Journal of Pain*, 11, 1230-1239.

Manchikanti, L., Cash, K.A., Damron, K.S., Manchukonda, R., Pampati, V., McManus, C.D. (2006). Controlled substance abuse and illicit drug use in chronic pain patients: An evaluation of multiple variables. *Pain Physician*, 9, 215-25.

National Center for Health Statistics. Health, United States, 2006. With chartbook on trends in the health of Americans. Hyattsville, MD.

National Institutes of Health. Cognitive behavioral therapy for back pain. Retrieved from www.nlm.nih.gov/medlineplus/ency/patientinstructions/000415.htm

Persson, A.L., Veenhuizen, H., Zachrisson, L., & Gard, G. (2008). Relaxation in the treatment for musculoskeletal pain: A systematic review of randomized controlled studies. *Physical Therapy Reviews*, 13, 355-365.

Pierce, J.L., Gardner, D.G. (2004). Self-esteem within the work and organizational context: A review of the organization-based self-esteem literature. *Journal of Management*, 30, 591-622.

CHAPTER 3 REFERENCES

Pizzi, L.T., Carter, C.T., Howell, J.B., Vallow, S.M., Crawford, A.G., & Frank, E.D. (2005). Work loss, healthcare utilization, and cost among US employees with chronic pain. *Disease Management and Health Outcomes*, 13, 201-208.

Somnath, P. (2012). Selected types of chronic pain among adults. *US Pharmacist*, 37, 10.
<http://www.uspharmacist.com/content/d/trendwatch/c/34010/>

Turk, D.C. (2002). Clinical effectiveness and cost-effectiveness of treatments for patients with chronic pain. *Clinical Journal of Pain*, 18, 355-365.

CHAPTER 4 RESOURCES

American Psychological Association. Why sleep is important and what happens when you don't get enough?
<http://www.apa.org/topics/sleep/why.aspx>

Centers for Disease Control. Sleep and sleep disorders.
<http://www.cdc.gov/features/sleep/>

Stanford University Center of Excellence for the Diagnosis and Treatment of Sleep Disorders.
<http://www.med.stanford.edu/school/psychiatry/coe/>

Mayo Clinic. Insomnia.
<http://www.mayoclinic.org/diseases-conditions/insomnia/basics/definition/CON-20024293>

Mayo Clinic. Sleep tips: 7 steps to better sleep.
<http://www.mayoclinic.org/sleep/ART-20048379>

U.S. Government. What are sleep deprivation and deficiency?
<http://www.nhlbi.nih.gov/health/health-topics/topics/sdd/>

CHAPTER 4 REFERENCES

- Abramson, M. (2009). The ups and downs of energy drinks. *Stars and Stripes*. <http://www.stripes.com/news/the-ups-and-downs-of-energy-drinks-1.87099>
- Barnes, C.M., Schaubroeck, J., Huth, M., & Ghumman, S. (2011). Lack of sleep and unethical conduct. *Organizational Behavior and Human Decision Processes*, 115, 169-180.
- Bedrosian, T.A., Weil, Z.M., & Nelson, R.J. (2012). Chronic dim light at night provokes reversible depression-like phenotype: Possible role for TNF. *Molecular Psychiatry*.
- Calamaro, C.J., Mason, T.B., & Ratcliffe, S.J. (2009). Adolescents living the 24/7 lifestyle: Effects of caffeine and technology on sleep duration and daytime functioning. *Pediatrics*, 123, e1005-e1010.
- Cappuccio, F.P., D'Elia, L., Strazzulo, P. & Miller, M.A. (2010). Sleep duration and all-cause mortality: A systematic review and meta-analysis of prospective studies. *Sleep*, 33, 585-592.
- Ferrie, J.E., Shipley, M.J., Cappuccio, F.P., Brunner, E., Miller, M.A., Kumari, M. & Marmot, M.G. (2007). A prospective study of change in sleep duration: Associations with mortality in the Whitehall II cohort. *Sleep*, 30, 1659-1666.
- Lighthall, A. (2011). Caffeine Consumption and Combat Stress Amongst Military Personnel: An Interview with Alison Lighthall, RN, BSN, MSN. *Journal of Caffeine Research*, March, 1, 13-14.
- McCoy J.G., & Strecher R.E. (2011). The cognitive cost of sleep lost. *Neurobiology of Learning and Memory*, 96, 564-582.
- Neylan, T.C., Marmar, C.R., Metzler, T.J., Weiss, D.S., Zatzick, D.F., Delucchi, K.L., Wu, R.M., & Schoenfeld, F.B. (1998). Sleep disturbances in the Vietnam generation: Findings from a nationally representative sample of male Vietnam veterans. *American Journal of Psychiatry*, 155, 929-933.
- Quitkin, F.M. (2002). Depression with atypical features: Diagnostic validity, prevalence, and treatment. *The Primary Care Companion*, 4, 94-99.
- Roehrs, T., & Roth, T. (2008). Caffeine: Sleep and daytime sleepiness. *Sleep Medicine Reviews*, 12, 153-162.

CHAPTER 4 REFERENCES

- Svan, J.H. (2012). Air Force studies effects of highly popular, super-caffeinated drinks. *Stars and Stripes*, <http://www.stripes.com/news/air-force-studies-effects-of-highly-popular-super-caffeinated-drinks-1.201067>
- Toblin, R.L., Clarke-Walper, K., Kok, B, Sipos, M, & Thomas, J. (2012). Energy drink consumption and its association with sleep problems among U.S. service members on a combat deployment—Afghanistan, 2010. *Morbidity and Mortality Weekly Report*, 61, 895-898.
- Wheaton, A.G., Liu, Y., Perry, G.S., & Croft, J.B. (2011). Effect of short sleep duration on daily activities—United States, 2005-2008. *Morbidity and Mortality Weekly Report*, 60, 239-242.