NSF SAFETY DEPARTMENT

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SAFETY & HEALTH NEWSLETTER

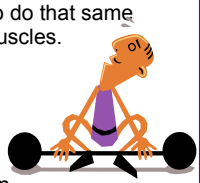
Health and Hygiene: SPRAIN and STRAIN

Athletes in training know their abilities and their limitations, because going beyond them leads to strained and sprained muscles and ligaments. Those injuries could put the athlete out of competition.

If your job involves considerable physical exertion, you also need to be aware of how much you can do safely, so as to avoid any injury that could put you on the bench for a while.

Sprains and strains can occur anywhere – in the workplace, during recreational and sporting events, and at home.

A sprain occurs whenever a muscle is stretched beyond its limit. Muscles can do a great deal of work, but they must be conditioned. A worker who is accustomed to manually handling a large number of pieces of material in a given workday can do so with ease. Those of us who have different duties would find it difficult to do that same amount of work without paying for it with aching muscles. If we should continue to do the work, however, we would soon be conditioned and be able to perform the job without pain.



However, even the conditioned athlete or worker cannot exceed the limitations of the muscles. When a muscle is stretched too much, the ligaments pull and sometimes even tear. Stretched ligaments and tendons are termed strains. A sprain is when tearing has occurred.

The industrial setting provides many opportunities for sprains and strains to occur; the most common is material handling. We all handle material in one way or another. Even the office worker is involved with material handling when picking up a package, box, or chair to move it. Other movements can also cause sprains and strains--overreaching or overextending a part of the body; reaching over something to pick up a load; or trying to reach a top shelf without using a proper stool or ladder.

What can we do to minimize these injuries? Well, this meeting is a beginning. If we understand what causes sprains and strains, we are better equipped to prevent them. A few basic rules to remember are:

1. Understand your limitations. Don't charge into a job cold. Warm up to it. Take a lesson from athletes-try to keep yourself in good condition and at your proper weight.

2. Don't overextend yourself-use a stepstool or a ladder when necessary, and avoid a fall as well as a strain.

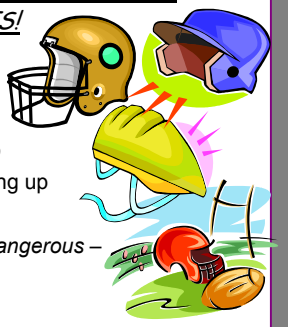
3. Lift with your legs, not with your back. Keep the load close. Don't twist your body while carrying a load.

4. Be sure there are no slipping or tripping hazards in your work area or around your home. The sudden jerk caused by a slip or trip can cause a sprain or strain.

5. Look into ways to eliminate lifting and carrying or to keep it to a minimum. Is there a better way-a way to let some equipment do most of the job? Wheelbarrows were invented for just such a purpose, and wheeled luggage is a more contemporary example.

Work smarter, not harder, it's easier and safer!

Use Your Head For A Safe Start: CHOOSE THE RIGHT HELMET FOR YOUR FAVORITE SPORTS!



Many sports that people enjoy require the use of helmets for safety. Yet while helmet usage is on the rise, many people still neglect to strap one on before climbing aboard a bike, lacing up skates, hitting the ball with a bat.
The bottom line: Leaving the helmet behind is dangerous – and potentially deadly.

Regardless of the sport, helmets cushion the blow of a fall, hit or other impact on the head. Nearly all helmets are made with expanded polystyrene, the same material found in picnic coolers. Style and construction vary by sport, and you need to use the helmet appropriately, "However," says Randy Swart, Director of the Bicycle Helmet Safety Institute in Arlington, Va., "wearing a helmet not designed for your sport is better than a bare head. It's just not ideal."

Follow these helmet tips before venturing out

Find a good fit. Adjust straps so the helmet sits comfortably on your head, snugly touching all around but not squeezing. You should not be able to pull the helmet off or move it in any direction. Wear the helmet on top of your head not tilted in any direction.

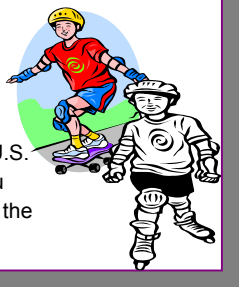
Know when to replace your helmet. Some helmets need to be replaced after you've been in a collision. Others, such as for skateboarding, are designed for multiple knocks. Read your helmet's instruction manual.

'Even though it may not show a crack, you never know what may have happened to the integrity of the helmet," says Patricia Gleason, president of the Safety Equipment Institute in McLean, Va. "You can't ensure that the helmet will protect the way it did before the fall."

Establish a "helmet habit." Children are more likely to wear helmets if their parents do and if they're introduced to them early. Always wear a helmet when participating in an activity that can cause injury to your head.

Remember these four S's:
Size: The Snell Memorial Foundation, a not-for-profit organization that tests 3rd develops helmet safety standards, advises sports enthusiasts to try on several different helmets before purchasing. The best way to gauge comfort level and fit is through comparison.

Strap: Make sure the chin strap fits under your chin snuggly and the "V" in the; traps meets under the ear. Expect to spend 15 minutes on this, says Randy Swart of the Bicycle Helmet Safety Institute.



Straight: Wear a helmet low on the forehead, about two finger widths above four eyebrows.

Sticker: Look for a manufacturer's sticker citing the U.S. Consumer Product Safety Commission standard. You can also look for independent certification by Snell or the Safety Equipment Institute.

Safety, Safe Habits, & Unsafe Acts: FORGET ABOUT LUCK!

Safety is not a matter of luck; it has to be taken seriously. To begin with, you should understand that accidents do happen, and they happen to perfectly nice people like you and me. Yes, sometimes we are lucky enough not to get hurt, even when we do things that we shouldn't do-like standing on the top rung of the ladder or trying to adjust a machine that hasn't been de-energized, let alone locked out.

But we can't and shouldn't count on luck. We are too valuable to ourselves, our families, and our friends to trust our lives and limbs to plain dumb chance. Here are a few thoughts to keep in mind that will help us take safety seriously and make the effort to stay safe.

➢ Observe and Obey Warning Signs

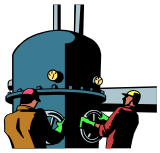
Every day we see safety signs in and out of the workplace that tell us that something may not be okay to do. The next time you see a sign that you may have passed many times without paying attention to, try reading the words. Think about the caution that the words convey. Then ask yourself if there might not be a very good reason that the warning sign has been posted. There probably is, so why not take the warning?

Many of us retain the somewhat childish habit of rejecting advice given to us by someone in authority. We know better, of course, because we aren't children anymore, but that can be a hard habit to break. Break it we must, though, if we take safety seriously, since we are not only valuable human beings, but, like all human beings, we are vulnerable. A warning is worth paying attention to.

➢ Be Willing to Ask for Help

Another thing we don't really like to do, like listening to others, is relying on others for help. But sometimes, in order to stay safe, we have to accept the fact that we can't do a particular job all-alone. We have to say to a co-worker, "Will you give me a hand? Are you too proud to say those words? Too shy? Reluctant to bother someone in the middle of that person's own work?

Those are easy reasons to understand-but they aren't worth getting hurt for. You don't have to be too proud, because everyone needs help once in a while. You don't need to feel shy, because your co-worker has the same problems that you do. And you don't have to get hurt just to avoid interrupting someone else after all, wouldn't you be glad to give someone else a minute or two of your time in order to prevent an injury?



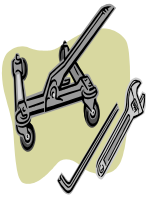
➢ Appreciate Teamwork

It takes everyone working together cooperatively in the workplace for everyone to be really safe. You can do a lot to maintain your own safety, but you can't be totally safe all by yourself. Why not? Because there's always the possibility that someone else may cause the accident that will do harm to others-including you.

That's why we all have to watch out for everybody, making safety a team effort. Teamwork means taking the time to show someone else the safe way to do the job, to point out a condition you think may represent a danger, to ask someone if they know the right way for you to do something new. Cooperation of this sort is necessary because we are all in this together-not just in the workplace but in life itself. And life, like work, is not only safer and more productive, but even more fun when we cooperate.

The essence of safety is the realization that we are too valuable to leave our well being to chance. That makes us want to take care of ourselves-to take our jobs, and our safe performance of them, seriously-and also to protect those working at our side.

Housekeeping & Maintenance: PREVENTIVE MAINTENANCE



The primary function of plant maintenance is to keep physical equipment in top operating condition. *Our* goal is *preventive* maintenance, meaning to *catch breakdowns before they happen.* Waiting until after the breakdown occurs costs money and can cause injuries.

So when a condition warns of future breakdown, service the equipment immediately or report it to your supervisor.

As you know, routine maintenance involves a variety of things-lubricating machines, disposing of scrap, inspecting tools, general cleanup, making minor repairs of machines and equipment because of wear, and other similar work.

But, the fact that maintenance is routine in nature does not detract from its importance. Let's not forget that production cannot be kept up without maintenance, and accidents cannot be prevented without maintenance. Your job is important. A good maintenance program goes a long way in making everyone more efficient and making this a safe place to work.

If we are going to have a good maintenance program, we should plan and organize it the same way as any other activity. In planning and organizing, let's consider at least five points:

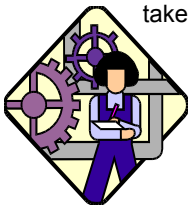
➢ Developing and following an effective set of steps to cover all the maintenance work.
➢ Establishing work schedules to cover routine repeated operations such as machine lubrication, cleaning windows and lighting fixtures, adjusting belt tensions, and so forth.
➢ Providing a plan for handling jobs that only happen once in a while such as repairing and installing machines.
➢ Working with other departments in advance so that you will have spare parts for repairs when needed.
➢ Developing a follow-up system to make sure that all these steps and schedules are followed.

Work control is necessary for an efficient and safe maintenance operation. Work control involves planning, scheduling, and follow-up of the job. A smooth-flowing paperwork system will help to control each job all the way.

Work plans should indicate the nature of each job, how it is to be done, the material needed, and the safety precautions required. Records are important and must be kept current. The kinds of records that should be kept will depend on plant operations, operation time of machines, number of maintenance crews, and schedules.

You should list potential trouble points on maintenance records. Then, inspections should be scheduled based on these potential trouble points. The schedule for these inspections can be determined by the reports turned in by inspectors and members of the maintenance crews. These inspections of potential trouble points are essential to preventive maintenance.

Handle only maintenance and repairs that you are authorized to take care of. Refer other problems to your supervisor.



Your job is important. When maintenance is properly planned and organize it is a major factor in controlling accidents.

Electrical Safety: LOW-VOLTAGE HAZARDS!

Whether in the area of safety or anywhere else, not getting the facts straight causes a lot of trouble-particularly when people accept a mixed-up notion just because it is widely believed.

Quite a few such fictions regarding safety persist as common beliefs, even though they lead to on-the-job injuries and deaths every year.

One of these is the widely held *fiction* that low-voltage electricity is not dangerous. The *fact* is that most injuries involving electricity are from low- voltage power sources.

In fact, the amount of current flowing at any given voltage depends upon the resistance of the materials through which it flows-including any human body that becomes part of the circuit.

Metals such as copper, iron, and aluminum offer low resistance, so they are good conductors. Materials like rubber, ceramics, and dry wood (among others) offer high resistance to the flow of current, making them poor conductors but good insulators.

The human body can act as either a poor conductor or a good one, depending on various factors:

- The health of the individual
- The duration of contact with the flow of current
- The area of contact
- The condition of the skin (wet, dry, greasy, etc.).

If you were to measure your body's resistance to the flow of current from one arm to the other on a warm day on which you were perspiring freely, the resistance could be low enough that 25 volts would produce enough current to kill you.

There are cases of deaths caused by 32-volt farm lighting systems, yet, under favorable conditions, the body's resistance may be such that a 120-volt house lighting system might cause only a slight tingling shock.

Here is a safe conclusion about electricity and the most important *fact* to remember: If you know little or nothing about it, leave it alone put a tag and report or ask help from immediate superior. Conditions can vary so greatly that without knowledge of all the facts-and what they mean-you are sure to make an error.

In working with electricity, however, there is no margin for error: Make an unwise decision, and you may be saying" sayonara. "

SAFETY SLOGANS:

ALCOHOL REDUCES PERFORMANCE, IMPAIRS JUDGEMENT AND INCREASES THE WILLINGNESS TO TAKE RISKS.

Burn: PREVENT PAINFUL BURN INJURIES

A serious burn is about the worst kind of injury you can receive. It is incredibly painful and can take years of rehabilitation. Victims often die a slow and agonizing death from infections and other complications related to burns. Take the necessary precautions to prevent a burn rather than to try to recover from one. There are many burn hazards, so always be on alert for them.

In the workplace, burn hazards include hot surfaces, hot liquids, vapors and solids, fires and explosions, compressed gases such as nitrogen and propane, and chemicals, which cause burns on contact with the skin.

Burns are painful injuries, which can cause permanent scarring, disability and even death. Take precautions to prevent burns both on and off the job.

THE FOLLOWING IS THE SAFETY DEPARTMENT'S ACTIVITIES FOR JULY 2003

- Enlisted Safety Committee Meeting – 3 July 03, 1500H @ NSF Conference Room. Target audience: All Safety Representatives.
- Safety Representatives Briefing –16 July 03, 1330H @ B-331 NSF Safety Training Room Target Audience: All newly designated Safety Representatives.
- Hazardous Materials Coordinator's Briefing - 17 July 03, 1330H @ B-331, NSF Safety Training Room. Target Audience: All newly designated HazMat Coordinators.
- July 03 Occupational Safety & Health (OSH) Inspection: Supply/ Fuels (Causeway Gas Station, POL Pier) /Billeting (BOQ's 1,2,3,4,5,6,7,8,9,10,11).
- Island Indoctrination Class (Safety) – Bi-weekly, 1300H@ Acey Duecey Room, Turner Club Complex. Target Audience: All new personnel (mandatory for Officers, enlisted and civilian personnel).

Know Your Safety Staff:

Ronald W. Thornhill – Safety Officer
Dave D. Cruz – Safety Specialist
Marilyn S. Satsatin – Safety Technician

There's always room for improvement. Visit us at **http://ice.disa.mil** and tell us how we can improve the island's safety program.

Need to report a Safety Hazard?
Call the NSF Safety Office at **extension 370-4123** or send an email to the Safety Officer at **thornhillr@dg.navy.mil**

Sources: Safety Talks Vol. II & I
NSC Family Safety & Health Helmet
Safety Slogans, National Safety Council