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A Safety Module:

TAKING CARE OF YOUR BACK

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Inside This Inservice:

Interesting Facts	2
Risk Factors for Back Problems	3
Symptoms of Back Trouble	4
Anatomy Basics	5
Common Back Problems	6
Treating Back Pain	7-8
Tips for a Healthy Back	9-11



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IN THE KNOW

Developing Top-Notch CNAs, One Inservice at a Time

A Safety Module:

Taking Care of Your Back

HEALTH CARE: A RISKY BUSINESS!

It probably comes as no surprise to you that:

- Health care workers are at the top of the list for work-related back injuries.
- Most nursing assistants who hurt their backs do so while transferring or lifting a client.
- In most industrial jobs, women are not expected to lift more than 50 pounds. But, in health care, women are often expected to lift clients who weigh several hundred pounds or more. (And it's not much better for men in health care, either!)



Every day you bend, lift, stretch, twist, stoop, push and pull—over and over and over again! Often, you must work quickly, without assistance and with few rest periods.

So what's the bad news? Over time, your responsibilities at work can take a real toll on your back, putting you at risk for back trouble.

Don't worry though, *there's good news, too!* There are many things you can do to make sure your back stays healthy and pain-free!

Keep reading to learn more about how to avoid painful back problems.

Back Care Web Sites

If you have access to the internet, you may want to explore these sites:

- www.allaboutbackpain.com

This site has lots of great information on back pain. It has a "Spine Wizard" which asks a few questions about the type of back pain someone is having and then gives suggestions for what might be wrong. (Of course, this is no substitute for a doctor's care.)

- www.spine-health.com

- www.spineuniverse.com

INTERESTING FACTS ON BACK PAIN!

- Low back pain is as common among people with desk jobs as it is among people who perform heavy labor.
- More than 85% of adults have at least one episode of low back pain during their lives.
- When you lie on your back, there's only 25 pounds of pressure on the discs of your lower back. Lying on your side increases the pressure to 75 pounds. When you stand up, there's 100 pounds of pressure on your lower back. Lifting a ten pound weight makes the pressure jump to 220 pounds! Lifting seventy pounds puts up to 1000 pounds of pressure on the lower back! So, just imagine how much pressure your back feels when you lift a 200 pound client!
- Every year, there are nearly 400,000 work-related back injuries in the United States. These injuries are responsible for 93 million lost days from work.
- Most back pain develops when people are between the ages of 30 and 50, but up to 23% of children have episodes of low back pain.
- Bending over or leaning down puts tremendous pressure on the lower back. And it's even worse if you are overweight. For example, a guy who is 25 pounds overweight puts an extra **250 pounds** of pressure on his back every time he bends over.
- Every year in the U.S., at least 31 million people suffer from back pain. It costs \$60 billion to treat them.
- Back pain is the leading cause of disability in men younger than 45.
- Unless pain travels way down the back of the leg, there's only a 1 in 1000 chance that it's caused by a bulging disc.

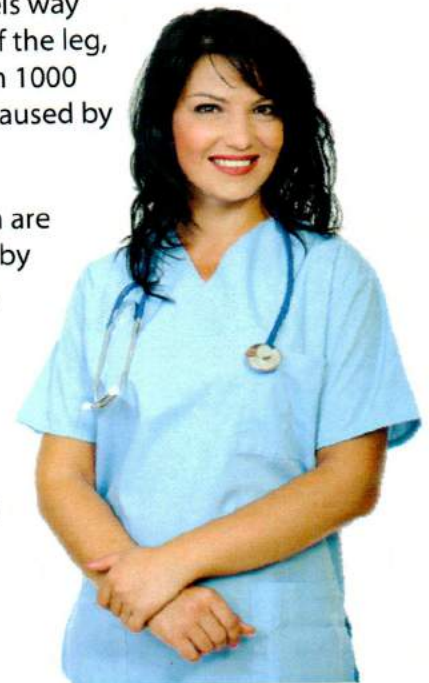


Improper lifting is NOT the main cause of back problems.

Can you guess the main cause?

ANSWER:
Poor posture

- Men and women are affected equally by lower back pain.
- The only thing that brings people to the doctor more often than back pain is the common cold!



WHAT'S NEW?

Grab your favorite highlighter! As you read through this inservice, **highlight five things** you learn that you didn't know before. Share this new information with your supervisor and co-workers!



WHO'S AT RISK FOR BACK PROBLEMS?

No matter what kind of work we do, we are all at risk for back pain if we:

- Sit or bend a lot.
- Lift, move or carry things incorrectly.
- Are overweight or pregnant.
- Smoke. (Smoking increases the risk of disc degeneration and it causes problems by reducing blood flow to the spine and the surrounding muscles.)
- Don't exercise regularly.
- Have had previous episodes of low back pain.
- Are under stress. (Tense muscles are more easily strained or sprained.)
- Play sports.
- Have poor posture while sitting, standing or lying down.
- Have a weak back and/or abdominal muscles.
- Come from a family with a history of degenerative disc disease or degenerative arthritis.
- Age. The older we get, the greater chance we have of developing some type of back problem.

WHAT ABOUT BACK BELTS?

Millions of Americans wear back belts for their jobs in an effort to prevent back injuries. But do they work? According to researchers, the answer is *no*.

There seems to be no difference in the number of back injuries between workers who wear back belts and those who don't.

In addition, studies have shown that most back belts aren't worn properly. They should be worn very *low*, over the front part of the abdomen. Most people wear them around their waists which does no good at all. They might as well be wearing them around their necks!



BACK PAIN STARTS EARLY!



Have you ever seen school children bent over from the weight of their backpacks? Backpack-related injuries are affecting at least 7000 American students every year. To avoid back problems, backpacks should weigh no more than 10% of a child's weight. Yet, many students carry book bags weighing 25 pounds or more! Lawmakers in several states, including California, Massachusetts, Illinois and New Jersey, passed laws to limit how much textbooks can weigh—in an effort to prevent back injuries among students.

SYMPTOMS OF BACK TROUBLE

SYMPTOMS OF BACK TROUBLE

- Pain that throbs, aches, shoots, radiates, stabs, pounds, tugs, pinches, cramps, burns, stings and feels either dull or sharp. The pain may seem to move to different parts of the body.
- Numbness or weakness in your legs.
- Pain in the lower back and legs that only happens when you are in certain positions.
- Pain that gets worse when you are tired or under stress.
- Pain down one or both legs (with or without pain in the lower back).
- Sleep problems.
- Decreased energy.
- Depression and/or anxiety.

TYPES OF BACK PAIN

- **Acute** pain is usually short-lasting and serves as a signal that something is wrong in the body. Acute back pain is frequently caused by a sudden injury.
- **Chronic** pain goes on and on for months or even years. The cause may be known or it may be a mystery.

Please keep in mind that you can't judge the seriousness of a back injury by the amount of pain. Some severe problems may cause only minor pain and some minor injuries can cause severe pain.

LEVELS OF BACK PAIN

- **Mild** pain does not interfere with activities.
- **Moderate** pain interferes with activities but is not disabling.
- **Severe** pain is disabling and keeps people from functioning.

WHEN TO SEE A DOCTOR...

Don't ignore your back pain if:

- Your symptoms are severe or last longer than a few days.
- The pain keeps you from doing your normal daily activities or wakes you up at night.
- Your legs feel weak.
- You have problems controlling your bowel or bladder.
- You feel numb in the groin or rectal area.
- The pain is worse when you cough or sneeze.
- The pain or numbness travels down one or both legs.

People who treat back pain include:

- Family Physicians
- Neurologists
- Orthopedists
- Chiropractors
- Surgeons
- Physical Therapists
- Pain Management Specialists



ANATOMY BASICS

YOUR NECK

When you think about it, the neck (the cervical spine) is a pretty remarkable structure. It can move forward, backward, tilt from side to side and rotate in both directions.

In addition, it is strong enough to support your head all day long. However, all the great work done by your neck puts it at risk for being overused.

Here are some common reasons why you might develop neck pain:

- Cradling a telephone between your neck and shoulder.
- Propping your head on pillows to read or watch TV while in bed.
- Sleeping on the wrong type of pillow.

YOUR BACK

Like the neck, the rest of the spine is made up of small bones called vertebrae. These bones are stacked on top of each other to form a column. Between each vertebra is a disc that acts like a cushion. The vertebrae are held together by ligaments and are supported by muscles.

The spine forms three natural curves that give it a shape like the letter "S".

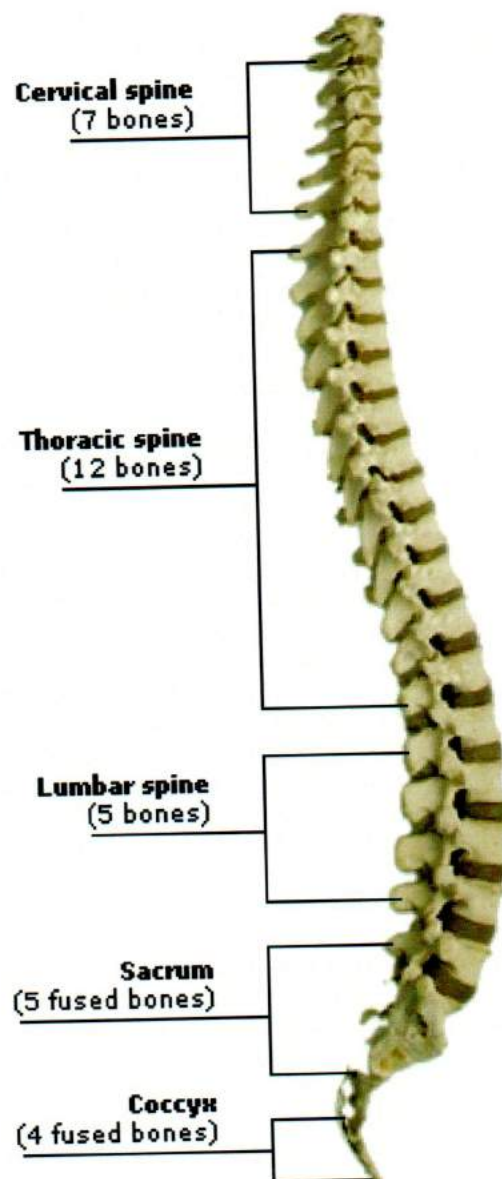
The spine has a number of important jobs. It:

- Supports the body and head.
- Gives the muscles and ligaments someplace to attach themselves.
- Allows your body to bend, lean and twist.
- Protects your spinal cord and nerves.

The lower part of your back supports most of your body weight. Even a minor problem with the bones or muscles in this area can cause pain.

Here are some common reasons why you might develop lower back pain:

- Having poor posture.
- Sleeping in an awkward position.
- Lifting heavy objects (including people).
- Working in awkward positions day after day.
- Having an accident such as falling down stairs or being hit by a piece of equipment.



COMMON BACK PROBLEMS

SPRAINS, STRAINS & SPASMS

Back sprains and strains are very common—and are probably responsible for most back pain. Muscle strains and sprains are not *serious* conditions but they can lead to chronic back pain if muscles continue to be abused.

Muscles and tendons can become strained by tension or by being overworked. A *strained* back usually heals itself within a few weeks.



With a *sprain*, a joint is forced beyond its normal range of motion which stretches and tears the ligaments.

Muscle *spasms* are abnormal contractions that can occur when a muscle is tired or strained. Sometimes, the back muscles will spasm—and the contracted muscle will lock up—in order to “hold” an injured spine in place. Spasms can be very painful.

BULGING & HERNIATED DISKS

The bones of your spine are separated by small cushions of cartilage—called discs. Each disc has a soft, squishy center, surrounded by tough outer rings. As people age, their discs lose moisture and don't bounce back into place as easily.

You may have heard of a “slipped disc”, but discs don't really slip. They can begin to *bulge out* from between the vertebrae—often as a result of years of poor posture. The bulging disc gets squeezed by the vertebrae. This may cause pain or there may be no symptoms at all.

Sometimes, a bulging disc ruptures, putting pressure on the nerves. A pinched nerve can cause pain, weakness and numbness.

Sometimes, a pinched nerve causes a condition known as *sciatica*. Typically, sciatica pain:

- Begins in the buttocks and travels down the back of the thigh and calf—and even into the foot and heel.
- Causes a burning or tingling feeling down the leg.
- Produces weakness or numbness in the leg or foot.

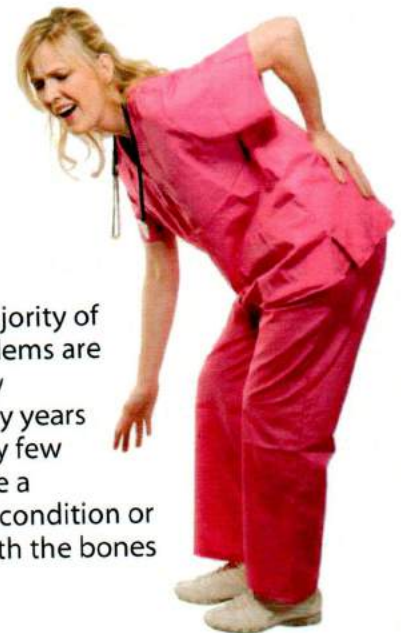
- Causes a shooting pain that makes it difficult to stand up.

Sciatica can be very painful, but it does not usually cause permanent nerve damage.

Most herniated discs can be treated without surgery by a combination of physical therapy, medications and exercise.

There isn't one easy test for diagnosing back problems, but x-rays and MRI's are sometimes helpful.

REMEMBER: The majority of neck and back problems are a result of tight achy muscles—caused by years of bad posture. Very few people actually have a dangerous medical condition or a major problem with the bones of the back.



TREATING BACK PAIN: BED REST

- For severe back pain, your doctor may suggest a few days of bed rest. However, in most cases, bed rest should be limited to 2 or 3 days. Lying down for longer than this may weaken muscles and bones—causing a slow recovery.
- While resting, you should try to get up every few hours and walk around, even if it hurts. Feeling a little discomfort is *normal* and does not mean that you are doing yourself harm.
- For most cases of back pain, doctors are never able to determine the exact cause. (But the pain usually goes away anyway.)
- Most low back pain is *acute* and will resolve by itself in a few days or weeks—with or without treatment. If the pain continues longer than three months, it is considered chronic.

IMPORTANT!

Avoiding all exercise when your back hurts can cause your muscles to “decondition”. This means they become weaker and weaker—putting them at greater risk for injury.

TREATING BACK PAIN: MEDICATIONS

- Some people take anti-inflammatory medications, such as Motrin or Tylenol, to relieve their back pain. It’s important to remember that even over-the-counter drugs can be abused. It’s best to take them only when recommended by a doctor.
- A doctor may prescribe other medications to decrease pain, reduce



swelling or relieve muscle spasms. Anyone taking these drugs should be aware of potential side effects—including addiction (with some prescription pain medications).

- Some types of back pain respond when medication is injected or implanted directly into specific muscles, nerves or joints.

TREATING BACK PAIN: SURGERY

- Across the US:
 - The average age for back surgery is 40-45 years.
 - Men are twice as likely to need surgery as women.
 - More than 95% of disc operations are performed on the fourth and fifth lumbar vertebrae.
- However, having severe back pain does not mean that you’ll need surgery. Back surgery has been found to be helpful in only 1 out of every 100 cases of low back pain.
- There are certain back conditions—such as tumors or infections—that *must* be treated with surgery. For most other back problems, having surgery is a *choice*. It’s important for people who are considering back surgery to learn as much as possible about their condition...and about the type of surgery suggested by their doctor.

OTHER TREATMENTS FOR BACK PAIN

Heat & Cold

- Within the first 48 hours of having back pain and/or muscle spasms, you may want to apply a cold pack to the painful area for five to ten minutes at a time.
- After 48 hours, a heating pad, hot shower or hot bath may help to relax the affected muscles.
- NOTE: The relief that comes from applying heat or cold is usually *temporary*.

Ultrasound

- Ultrasound involves the use of high-frequency sound waves. The tissues in our bodies are able to absorb these sound waves, producing a deep heat—well below the surface of the skin.
- Physical therapists often use ultrasound to treat back pain.

Massage

- Massage increases blood flow and relaxes muscles. It may help decrease back pain and spasms.
- Sometimes, the massage itself will cause pain—until the affected muscles begin to relax.
- Massage is also a temporary measure. It doesn't fix the underlying problem.

Acupuncture

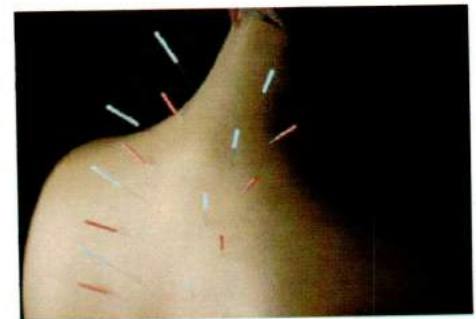
- Acupuncture is an ancient practice, developed centuries ago in China, in which thin needles are inserted into the skin at certain points on the body to relieve pain and treat disease.
- There are more than 2000 acupuncture points on the human body.
- The needles used for acupuncture are solid, sterile and slightly bigger than a human hair. People say they feel the needles pierce the skin, but that there is no pain.
- A standard acupuncture session costs from \$50 to \$70 and is sometimes covered by insurance.

Traction

- Traction is used mostly in cases of lower back pain.
- The idea of traction is to pull the vertebrae away from each other—relieving pressure on the disc.

Corsets & Braces

- Some doctors prescribe the use of a corset or a back brace—in order to restrict movement, support the abdomen and correct a person's posture.
- Some people wear neck or back braces after spinal surgery or because of a spinal fracture.



TIPS FOR A HEALTHY BACK

Practice proper body mechanics and posture throughout your day:

Sitting

- Choose a chair with a firm back whenever possible. Sit with your buttocks up to the back of the chair.
- Place a rolled-up towel or small pillow in the small of your back when sitting in a seat without good back support. This may include the time you spend sitting in a car or at a movie theater.
- When sitting for long periods, get up and stretch often.

Standing

- Stand up straight, without slouching.
- If standing at a counter for long periods, place one foot on a small stool (or open a lower cabinet and put your foot on the bottom shelf).

Sleeping

- Turn and flip your mattress every six months. Sleeping on a firm mattress is best for your back.
- Try putting a small pillow between your knees when you sleep. This helps keep your hips lined up and may prevent lower back stiffness.



Correct Posture Month

AMERICAN CHIROPRACTIC ASSOCIATION

Every May is Correct Posture Month...but posture is important every day!

Working

- Stretch out your back before the start of every work day so that your muscles are warmed up and "loose".
- Use available equipment to help you lift or transfer clients, such as:
 - Gait belts.
 - Hoyer lifts.
 - Sliding boards.
 - Draw sheets.
- Take advantage of electric beds by raising the bed to a comfortable working height. (Just remember to lower the bed again when you're done.)
- Always bend your knees—*not your waist*—when picking something up.
- Before lifting anything (or anyone) heavy, ask yourself these questions:
 - Can I lift this load safely by myself?
 - How far do I have to carry this load?
 - Is there a clear path for me to travel with this load?
 - Are there any closed doors in my path?
 - Will I be able to see where I'm going once I lift the load?
- Center your body over your feet and let your legs do the lifting.
- Lift in one continuous motion, without jerking.
- Avoid twisting your body while lifting. If you must turn, turn with your feet, not with your body.
- Look straight ahead while lifting. Don't look down.
- Remember to get assistance—from other people or equipment—*before* you try to lift or transfer a heavy client. If you don't, your back may suffer!

MORE TIPS FOR A HEALTHY BACK

Driving

- Adjust your seat close to the steering wheel.
- Keep your knees and arms bent to avoid straining your back.
- Use a headrest in your car. Use armrests if your car has them.
- Do some shoulder rolls at stoplights.
- Stop every hour or two on a long trip to walk around and do some stretches.

General Tips

- Maintain a healthy weight.
- Get regular exercise—at least 30 minutes every other day. Be sure to warm up before exercising.
- Include stretching exercises to increase flexibility and prevent injury.
- Do some strengthening exercises for your back, leg and abdominal muscles.
- Carry groceries in shopping bags with handles rather than by balancing bags on your hips.
- If you have a choice, push—don't pull. It's much easier on your back to push a heavy load than to pull it. (Think about a wheel chair...isn't it easier to push than to pull?)

- Make sure your TV is at eye level (or slightly above) and face the TV set directly while you are watching it.
- Add some aerobic exercises, such as walking or swimming, to help keep your weight down and to increase your circulation.
- Wear good shoes. If you wear athletic-type shoes for work, consider replacing them every six to eight months. (Athletic shoes are made of soft materials that tend to flatten after repeated use. This means your foot will not be supported as the shoes wear out.)
- When vacuuming, walk closely behind the vacuum instead of leaning forward. Bend your legs a bit, too.

If you already have back pain:

- Be prepared to explain to your doctor *where, when and how* your back hurts. Be ready to tell what increases your pain and what makes your back feel better.
- Consider keeping a pain diary—if your pain is chronic. Record what you experience day by day, week by week. For example, write down the level of pain you felt each day and what you did about it. Note whether your back felt worse at a certain time of day. Describe any exercise you've done and how it made you feel. Details like these may help your doctor diagnose and/or treat your pain.
- Follow your doctor's recommendations regarding diet, exercise, and other treatment options.



**How's your posture?
Do you recognize the way you tend to stand? If you're not sure, ask a co-worker to pick out your typical posture from the ones shown here.**

TREAT YOUR BACK TO PERFECT POSTURE!

Bad posture is a habit and can come from a combination of things, such as:

- Watching television from an awkward position.
- Sleeping on a mattress without good support.
- Having weak muscles.
- Being overweight.
- Being stressed out.

The key to good posture is maintaining the balance of your spine's three curves:

- The cervical curve is made up of the seven small vertebrae in your neck. It has a slight forward tilt.
- The thoracic curve includes the larger vertebrae in your chest. It is rounded with a backward curve.
- The lumbar curve is made up of five very large vertebrae. It has a forward tilt.

Remember:

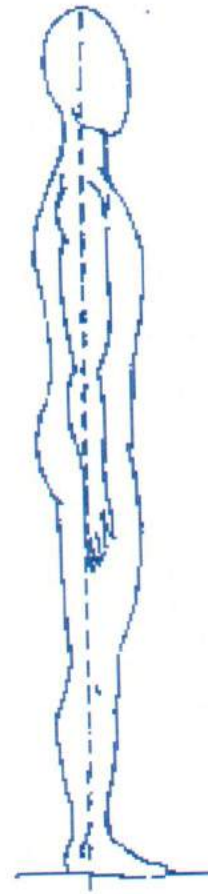
- If you hunch your back by slouching forward, you'll stress the discs in your lower back.
- If you sway your back by arching backward, you'll stress the muscles and ligaments of the lower back. (Keep in mind that the military stance of "chest out and shoulders back" is not good posture. It causes too much sway in the back.)
- "Standing up straight" means keeping your back's natural curves in balance. Imagine a straight line running from your ear, past your shoulder to your hip...and then down past the front of your knee and ankle.
- The muscles of your back, legs and, especially, your abdomen help keep you balanced—whether you are standing, sitting or lying down.

To check your "alignment", try this:

- Stand against a wall with your heels about two inches away.
- The space between your waist and the wall should be no more than the width of your hand.
- For many people, this does not feel normal, since they are used to a larger curve in the lower back.

And, to balance yourself properly:

- Stand with your feet flat on the ground. Relax your knees.
- Tilt your tailbone slightly under and forward.
- Drop your shoulders, expanding your breast bone slightly.
- Tighten your abdominal muscles a bit.
- Relax any muscles or joints that are tense.



Good posture gives you more energy by:

- *Letting your blood circulate better.*
- *Helping you breathe deeper.*
- *Allowing your internal organs to function better.*



IN THE KNOW

Developing Top-Notch CNAs, One Inservice at a Time

A Safety Module: Taking Care of Your Back

EMPLOYEE NAME
(Please print):

DATE: _____

- I understand the information presented in this inservice.
- I have completed this inservice and answered at least eight of the test questions correctly.

EMPLOYEE SIGNATURE: _____

SUPERVISOR SIGNATURE: _____

Inservice Credit:

<input type="checkbox"/> Self Study	1 hour
<input type="checkbox"/> Group Study	1 hour

File completed test in employee's personnel file.

Fill in each blank and then check your answers with your supervisor.

1. More than _____ % of adults have at least one episode of low back pain during their lives.
2. Smoking increases the risk of _____ degeneration and reduces the flow of _____ to the spine.
3. Back problems can cause people to lose control of their bowels and _____.
4. Poor _____ is one of the main causes of back problems.
5. Pain running from the buttocks down the back of the leg is known as _____.
6. When lifting something heavy, it's best to lift with your _____, not with your back.

Select either TRUE or FALSE and then check your answers with your supervisor.

7. TRUE or FALSE

If someone has severe back pain, it's probably caused by a serious medical condition.

8. TRUE or FALSE

A week or two of bed rest is the best remedy for most back problems.

9. TRUE or FALSE

If you stand with your chest out and your shoulders back, you'll have correct posture.

10. TRUE or FALSE

Strengthening your abdominal muscles is one of the best things you can do to have a healthy back.