

BACK SAFETY

Or ...

*How to prevent a lifetime of
back problems*

Back Injuries ...

- More than 1 million workers suffer back injuries each year, accounting for 1/5 of all workplace injuries or illnesses.
- One fourth of all compensation claims involve back injuries, which cost employers billions of dollars
- Add to that the employees' pain and suffering ...

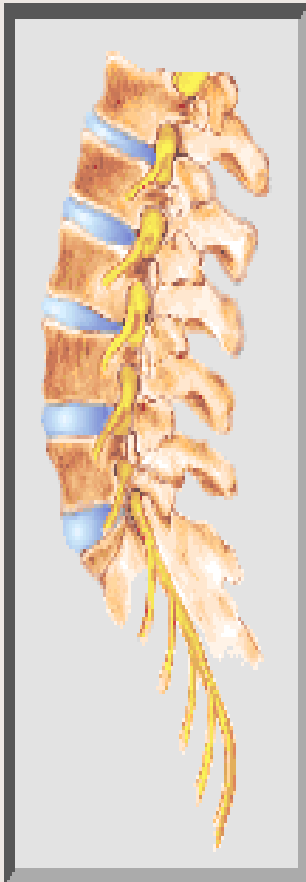
Back Injuries ...

- They are exceedingly painful, difficult to heal, and have an effect on everything you do.
- After suffering one back injury, you are much more likely to experience another one later on.
- It is important to learn how to avoid injuring or re-injuring your back.

Back Injuries ...

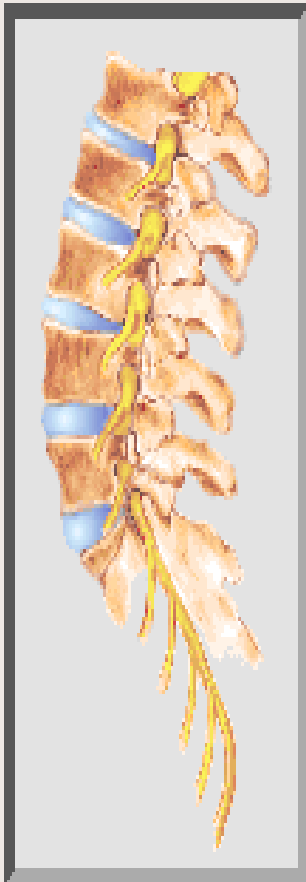
- Do yourself a big favor by learning proper lifting techniques and the basics of back safety.
- You might be able to save yourself a lot of pain...
- ...and a lifetime of back problems.

why do they occur?



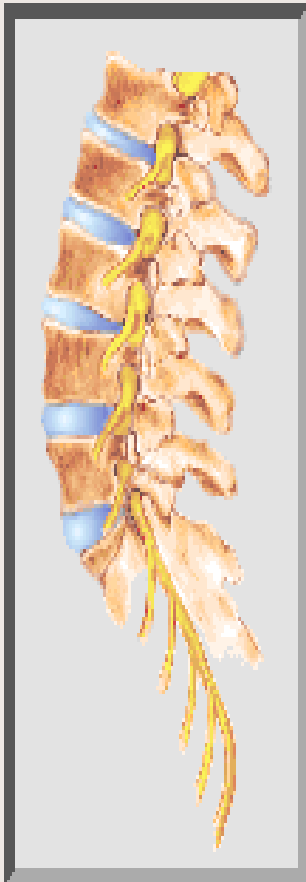
- The spine's vertebrae are held together by ligaments.
- Muscles are attached to the vertebrae by bands of tissue called tendons.
- Between each vertebra is a cushion known as a disc.

why do they occur?



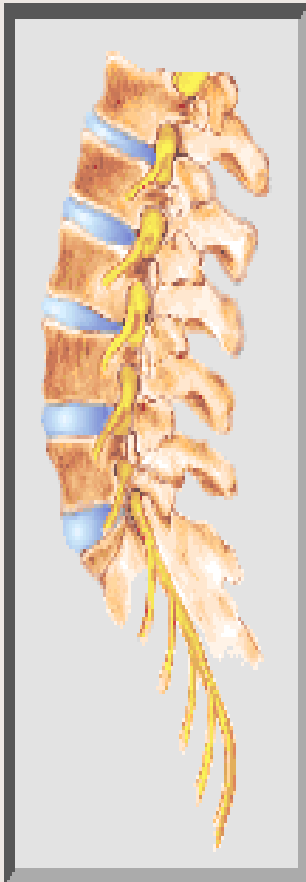
- Openings in each vertebra line up to form a long, hollow canal.
- The spinal cord runs through this canal from the base of the brain.
- Nerves from the spinal cord branch out and leave the spine through the spaces between the vertebra.

why do they occur?



- The lower part of the back holds most of the body's weight.
- Every time you bend over, lift a heavy object, or sit leaning forward, you put stress on your spine.
- Over time, the discs between your vertebrae can start to wear out and become damaged.

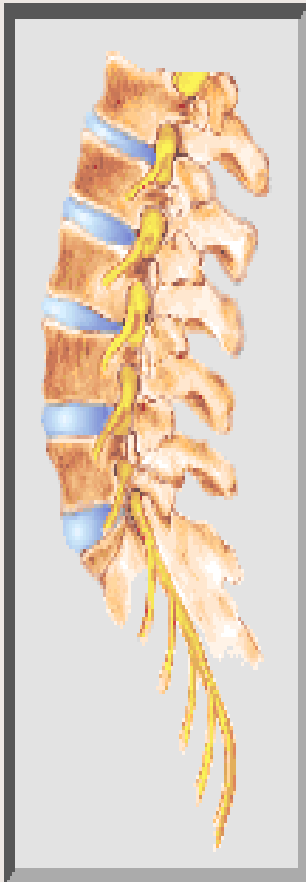
why do they occur?



The forces involved:

- Every time you bend or lean over to pick something up, you put tremendous pressure on your lower back...

why do they occur?

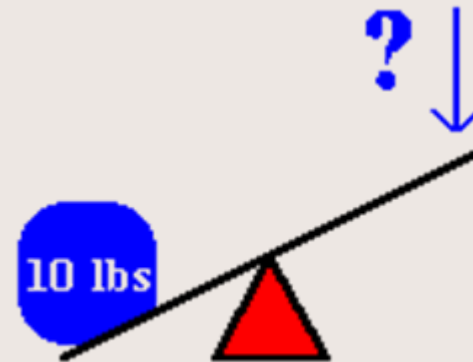


Back Safety

The forces involved:

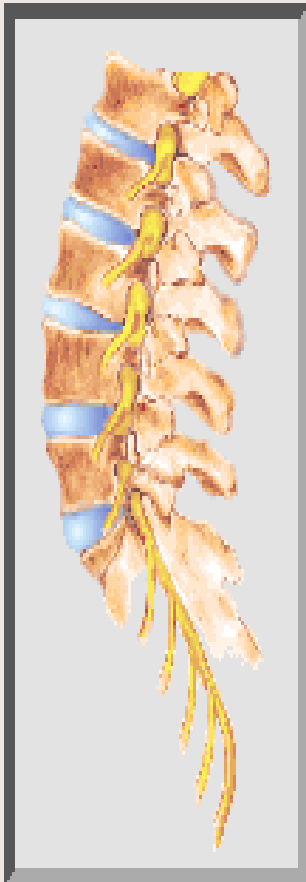
- Think of your back as a lever. With the fulcrum in the center of the lever, how many pounds would it take to lift a 10 pound object?

5 pounds
10 pounds
15 pounds



Exit

why do they occur?

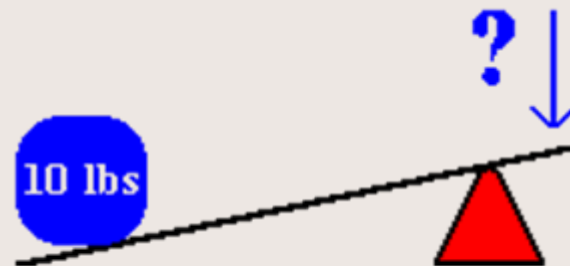


Back Safety

You're right!

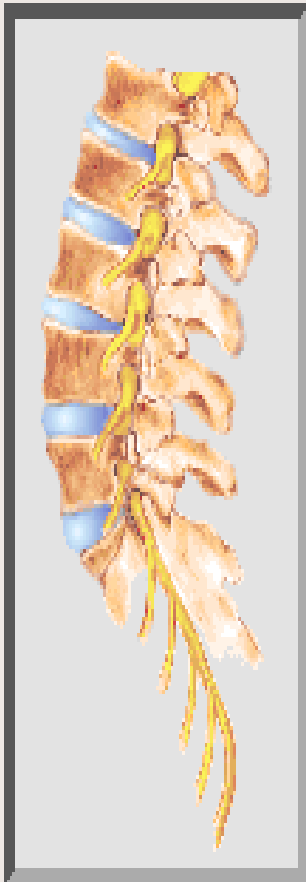
It takes 10 pounds of pressure to lift a 10 pound object.

Will it take more or less force to lift the same 10 pound object with the fulcrum shifted to one side?



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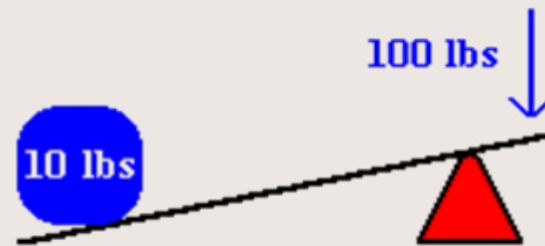
why do they occur?



Back Safety

You're right!

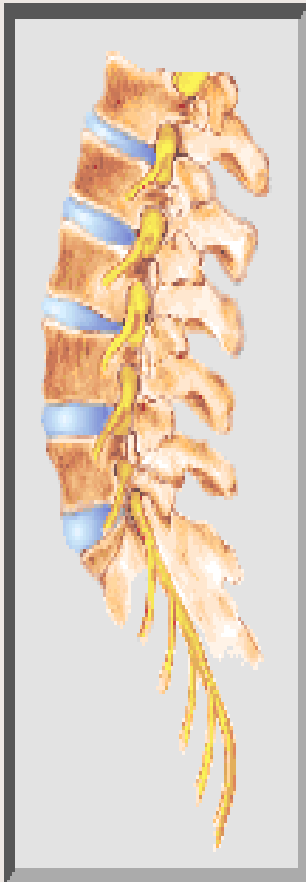
With the fulcrum shifted away from the object, it takes more force to lift the object.



The human back operates on a 10:1 ratio, with the waist acting as the fulcrum.

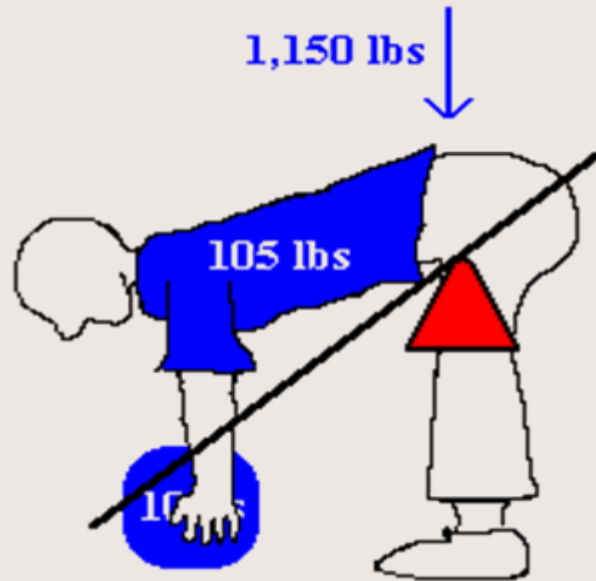
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why do they occur?



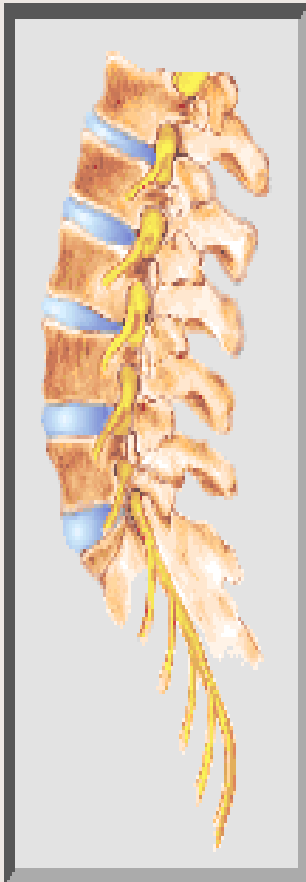
Back Safety

When you add in the 105 pounds of the average human upper torso, lifting a 10 pound object puts 1,150 pounds of pressure on the human back.



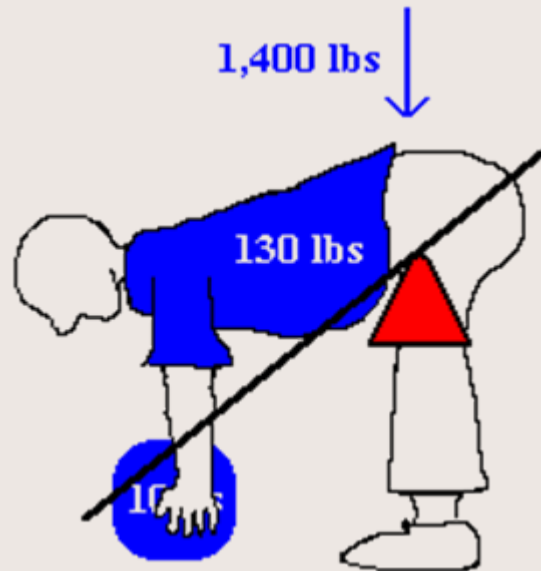
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why do they occur?



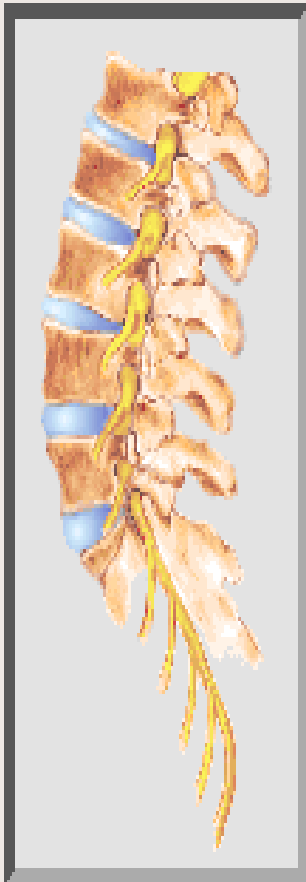
Back Safety

If you were 25 pounds overweight, it would put an additional 250 pounds of pressure on your back every time you bend over.



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why do they occur?



Now it's easy to see how repetitive bending and lifting can quickly cause back problems.

Even leaning forward while sitting at a desk or table can eventually cause damage and pain.

Contributing Factors



Poor Physical Condition

Your stomach muscles provide a lot of the support needed by your back. If you have weak, flabby stomach muscles, your back may not get all the support it needs, especially when you're lifting or carrying heavy objects. Good physical condition in general is important for preventing strains, sprains, and other injuries.

Contributing Factors



Poor posture...

is another contributing factor. When your mother told you to sit and stand up straight, she was giving you good advice. It is best to try to maintain the back in its natural "S" shaped curve. You want to avoid leaning forward (unsupported) when you sit, or hunching over while you're standing.

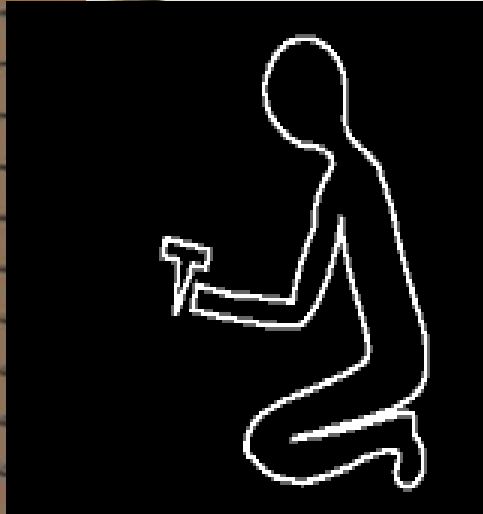
Contributing Factors

Extra weight...



- can be a big problem. Remember the fulcrum / lever principle? The more you weigh, the more stress it puts on your back every time you bend over--on a 10:1 ratio. That pot belly is not helping the health of your back.

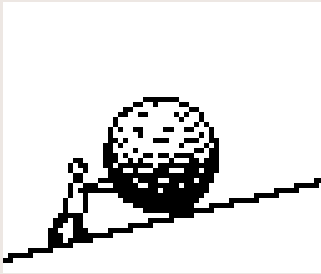
Contributing Factors



Stress -

Tense muscles are more susceptible to strains and spasms.

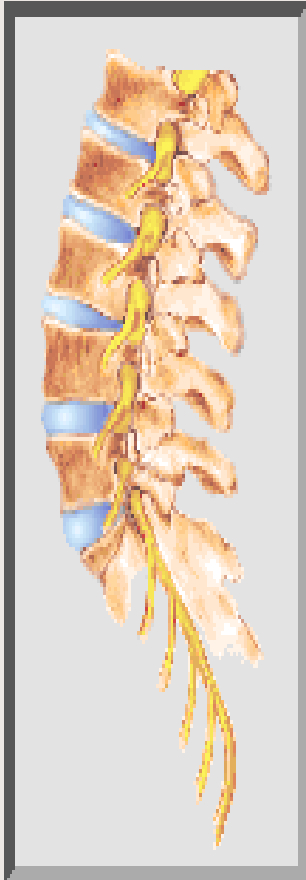
Contributing Factors



Overdoing it -

Don't be afraid to say, "This is too heavy for me to lift alone." It's important to recognize your physical limitations and abilities. Many people have injured their backs because they were afraid to ask for help.

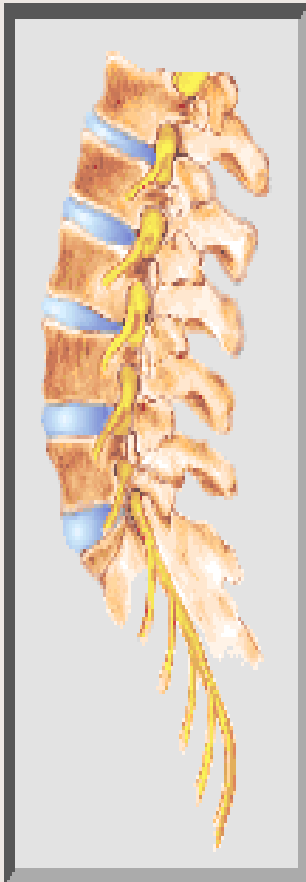
Common Causes



Many back injuries tend to be the result of cumulative damage suffered over a long period of time.

Certain actions, motions and movements are more likely than others to cause or contribute to back injuries...

Common Causes



Any time you find yourself doing one of these things, you should think:

DANGER! My back is at risk!

Common Causes



Heavy Lifting

...especially repetitive lifting over a long period of time...

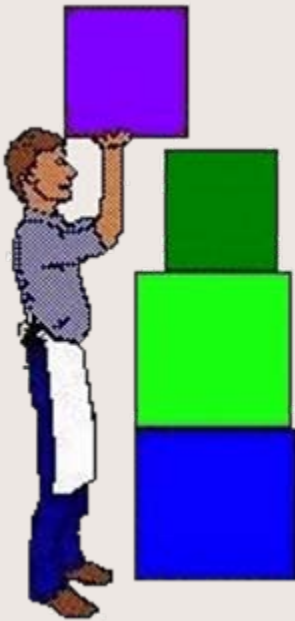
Common Causes

Twisting at the waist

...while lifting or holding a heavy load...



Common Causes



Reaching and lifting

...over your head, across a table, or out the back of a truck...

Common Causes

Lifting or carrying objects with awkward or odd shapes...



Common Causes

Working in odd, uncomfortable positions

...gardening, kneeling, tasks that require you to bend over for long periods of time...



Common Causes

Sitting or standing too long in one position

...(sitting can be very hard on the lower back)...



Common Causes

It is also possible to injure your back slipping on a wet floor or ice.



Back Safety

Exit

Common Causes

Some people suffer back pain because they sleep in a bad position, or because their mattress is too soft.



Back Safety

Exit

Common Causes



What is generally recommended as the best sleeping position for your back?

1. On your stomach or back (with legs level)
2. On your side (with knees slightly bent) or
On your back (with pillow under your knees)

Common Causes

#2 is right!

If you've been waking up with a sore or painful back, you might try sleeping on your side with your knees slightly bent, or on your back with a small pillow under your knees.

You can try putting boards under your old mattress or maybe try a new one.

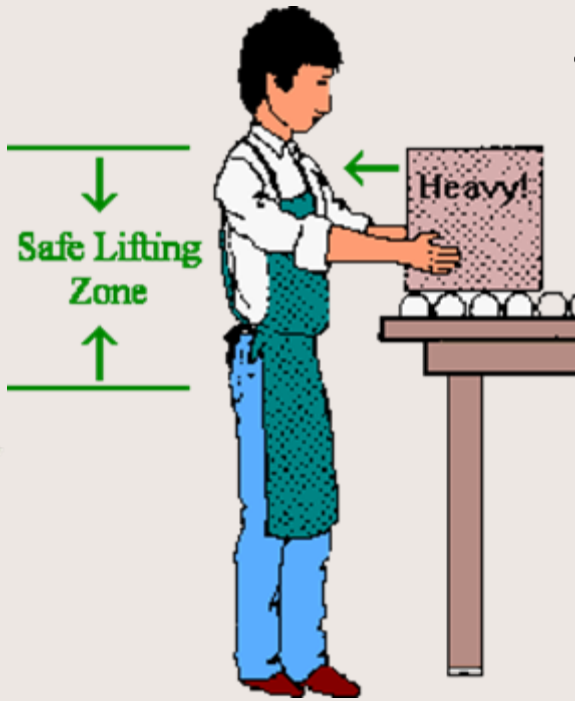
Of course, it's always wise to check with your doctor about any sort of health problem.

Prevent Back Injuries

The best way to prevent back injuries is to develop habits that reduce the strain placed on the back.

There are some basic things you can do to help.

Prevent Back Injuries



- **Avoid lifting and bending whenever you can.**

Place objects up off the floor.

That way you won't have to reach down to pick them up again.

Raise / lower shelves.

Prevent Back Injuries



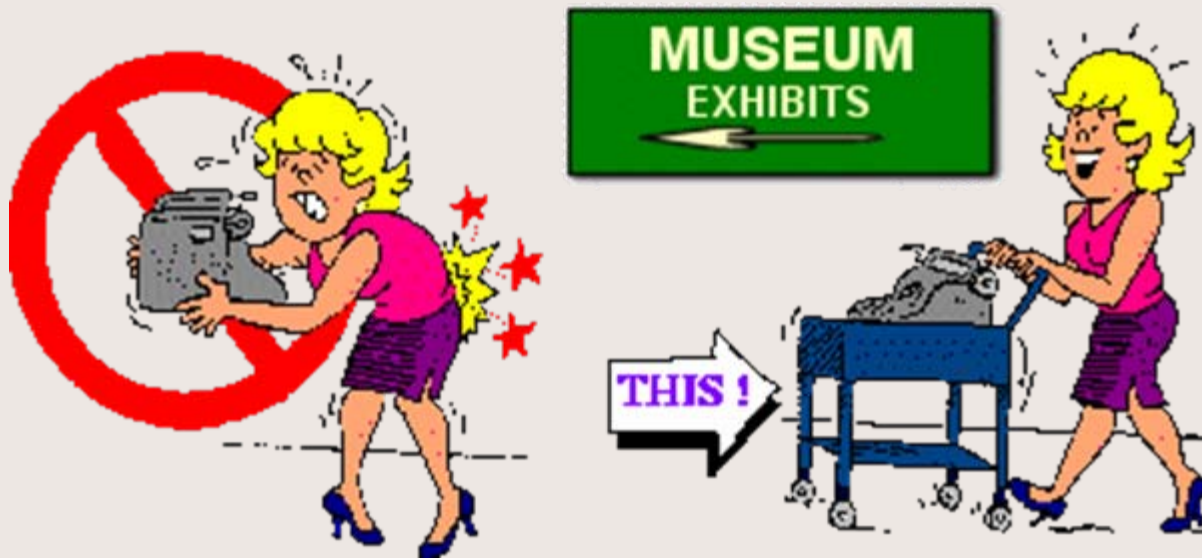
- **Avoid lifting and bending whenever you can.**

The best zone for lifting is between your shoulders and your waist.

Put heavier objects on shelves at waist level, lighter objects on lower or higher shelves.

Prevent Back Injuries

- Avoid lifting and bending whenever you can.



Use carts and dollies to move objects, instead of carrying them yourself.

Prevent Back Injuries

- **Avoid lifting and bending whenever you can.**



Which is better for your back—**pushing** a cart or **pulling** a cart?

It is **better to push** a cart, dolly, lawnmower, wheelbarrow, etc. than it is to pull it. However, if you do have to pull it, consciously force yourself to tighten your stomach muscles and try to maintain good body posture.

Use cranes, hoists, lift tables, and other lift-assist devices whenever you can.

Prevent Back Injuries

- **Use proper lifting procedures.**
 - Bending your knees keeps your spine in a better alignment.
 - Instead of using your back like a crane, let your legs do the work.

Prevent Back Injuries

- **Use proper lifting procedures.**

Follow these steps when lifting:

1. Take a balanced stance with your feet about a shoulder-width apart. One foot can be behind the object and the other next to it.
2. Squat down to lift the object, but keep your heels off the floor. Get as close to the object as you can.

BEND YOUR KNEES



Prevent Back Injuries

- **Use proper lifting procedures.**

Follow these steps when lifting:

3. Use your palms (not just your fingers) to get a secure grip on the load. Make sure you'll be able to maintain a hold on the object without switching your grip later.
4. Lift gradually (without jerking) using your leg, abdominal and buttock muscles and keeping the load as close to you as possible. Keep your chin tucked in so as to keep a relatively straight back and neck line.



Prevent Back Injuries

- **Use proper lifting procedures.**

Follow these steps when lifting:

5. Once you're standing, change directions by pointing your feet in the direction you want to go and turning your whole body. Avoid twisting at your waist while carrying a load.

AVOID TWISTING



Back Safety

Exit

6. When you put a load down, use these same guidelines in reverse.

Prevent Back Injuries

Also follow these lifting tips:

Reduce the amount of weight lifted. If you're moving a bunch of books, better to load several small boxes than one extremely heavy load.

Use handles and lifting straps.

Get help if the shape is too awkward or the object is too heavy for you to lift and move by yourself!

Prevent Back Injuries

Body Management:

It's important to know your body's limitations, and it's important to be aware of your body position at all times.

Learn to recognize those situations where your back is most a risk: bending, lifting, reaching, twisting, etc.

Then take measures to avoid an injury.

Prevent Back Injuries

Body Management:

Stretch first –

If you know that you're going to be doing work that might be hard on your back, take the time to stretch your muscles before starting, just like a professional athlete would do before a workout.

This will help you avoid painful strains and sprains.

Prevent Back Injuries

Body Management:

Slow down –

If you're doing a lot of heavy, repetitive lifting, take it slowly if you can.

Allow yourself more recovery time between lifts, as well. Don't overdo it.

Prevent Back Injuries

Body Management:

Rest your back –

Take frequent, short (micro) breaks.

Stretch. If you've ever been working in an awkward position for a long time, then stood up and felt stiff and sore, you know you've been in that position too long, and your body is now protesting.

Taking a one minute stretch break every now and then can help you avoid that.

Prevent Back Injuries

Body Management:

Sleep on a firm mattress. –

Also, the best sleeping position for many people is either on the back with the knees slightly elevated (by a pillow), or on the side with knees slightly bent.

Prevent Back Injuries

Body Management:

Get in shape –

Strengthen your stomach muscles, lose a little weight, increase your flexibility.



Acknowledgement of Receipt of Training

Date _____

Provider _____

I, _____ (name of Provider), acknowledge that I have received Alianza Family Services (AFS) orientation and training covering the following NM Department of Health requirements as specified in NM DDS Policy T-003 dated February 23, 2007 "Training Requirements for Direct Service Agency Staff."

_____ (please initial) Aspiration Risk Management Training

_____ (please initial) Blood-borne Pathogen Training

_____ (please initial) Hazardous Materials Guide

_____ (please initial) Fire Extinguisher Training

_____ (please initial) Proper Lifting Procedures ("Back Safety Training")

_____ (please initial) General Vehicle Safety Precautions

_____ (please initial) Transporting Individuals with Physical and Cognitive Disabilities and Behaviors (Assisting Passengers with Disabilities)

_____ (please initial) Wheelchair Securement Training

_____ (please initial) Emergency Procedures for Disaster Preparedness (Emergency Evacuation Procedures)

Signature of Provider Trainee

Signature of AFS Representative

Name of AFS Representative (print)

Please turn in completed form to your Alianza Family Services Service Coordinator