

Preventing and Caring for Sprains and Strains

Sprains and strains are some of the most common injuries sustained by adults.

While they can be quite painful, many can be cared for safely at home.

Sprain vs. Strain - What's the difference?

Basically, an injury to a joint is a sprain while an injury between two joints is a strain.

Overstretch a ligament – the elastic tissue that joins bones together – you have a sprain.

Overstretch a tendon – the elastic tissue that connects muscles to bones – or a muscle, you have a strain.

Both involve breaking some of the fibers that make up the elastic tissue; the more fibers that are torn, the worse the injury.

Prevention

Stay hydrated - 3 main reasons

1. Your muscle cells actually use up a molecule of water every time they contract. If you aren't well hydrated, the muscle cells can't contract as well and the whole muscle has to work harder to do get the job done. The harder your muscle is working, the more likely you are to hurt it.
2. When you're dehydrated, you don't have as much lubrication between the layers of muscle in a body part. Just like in an engine with dirty oil, a lack of lubrication causes extra friction and extra wear and tear on your muscles.
3. Your muscles make waste products while they work. These are actually poisonous to your cells if they build up too much. Being dehydrated makes it harder for your body to flush out these waste products and that makes your muscle fibers stiff instead of stretchy.

Extra tip - How do you know if you're well hydrated?

The amount of water you need to drink varies a lot depending on what you're doing, what the weather is like and even your individual body type. The only sure way to know how well you are hydrated is the color of your urine. Light and clear means you're doing great! Drinking small amounts of water frequently will help more than drinking a large amount just a few times per day because your stomach can only absorb so much water at one time.

Warm up before you get moving

General stretching technique - 4 steps

1. Start from a relaxed standing or seated position, looking straight ahead with your shoulders relaxed and your feet about hip-width apart.
2. Move the body part you're stretching back and forth in a gentle, controlled manner once or twice.
3. Move that same body part as far as you can comfortably in one direction; apply gentle, steady pressure with your hand or a sturdy surface like a wall.
4. Repeat movement and pressure for the opposite direction.

See whole body stretching document.

Use good body mechanics

Position yourself so you aren't twisting your neck or back while you're lifting or reaching.

Don't lock your joints; keep a very slight bend in your knees while you're pushing or lifting and in your elbows while you're reaching or carrying something.

Test the amount of force you need to lift or push before you go all out.

Stay alert and move with control; muscles don't like surprises!

Self-care

****Safety first! If you have dark bruising, severe swelling or are unable to move the injured joint, call your preferred nurse advisor hotline to see if you should go in****

Caring for a sprain or strain properly the first few days after it occurs can cut your total amount of healing time in half. Using an injured joint or muscle too forcefully while it is still hurt increases your chance of excessive scar tissue that will cause you pain and difficulty even after the original injury has healed.

Apply cold to the area as soon as you can after the injury happens. 20 minutes on, 20 minutes off is a good rule of thumb. An ice pack is best on larger areas but ice massage can be good for smaller ones. **See Cold Modalities document for a description of ice massage and a recipe for a homemade gel ice pack.**

Gentle, pain-free movement is good. Pain-free is the key; don't move too far or too fast. Mild discomfort is okay but you shouldn't have more pain after you move around than before. If you overdo it, ice and elevate as soon as you're able.

Elevate the injured body part, above heart level if you can, whenever you're sitting still. Make sure you aren't tightly bending any joints between the injury and your heart.

Consider using an ace wrap or other soft bandage to support the area or keep yourself from moving it too much while you're sleeping. Don't wrap too tightly because this will actually trap fluid and make things worse.