



# Spinal fusion surgery



**Intermountain**  
**Primary Children's Hospital**  
*The Child First and Always®*





# Spinal fusion surgery:

What to expect  
and how to prepare

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# Preparing for spinal fusion surgery

*To prepare for your upcoming surgery and make recovery smoother:*

- Watch the Pediatric Pain Management Techniques video ([Youtu.be/MUvQlvfpulE](https://youtu.be/MUvQlvfpulE)) on Primary Children's Hospital's YouTube channel. You'll learn to reduce pain through:
  - guided imagery
  - medicine
  - music therapy
  - relaxation exercises

You can practice these techniques so you can use them after surgery.

- Attend a pre-operative spine class.

This class is:

- Held the first Thursday of each month at 4:30 p.m. at Primary Children's Hospital
- Taught by same-day surgery nurses, child life specialists, pain service nurses, and physical therapists, who'll be key caregivers throughout the surgery
- The place to ask questions about surgery and learn more about what to expect

To register for this class, email [PCHSpine@imail.org](mailto:PCHSpine@imail.org) or call 801.662.1655.

- Attend a pre-surgery class if you can't attend the pre-operative spine class. The class is held Monday and Wednesday from 4:30-5:30 p.m. at Primary Children's Hospital and includes:
  - A video about coming to the hospital
  - A tour of the hospital areas you'll see the day of surgery
  - Activities introducing the equipment, sights, and sounds of surgery



- Activities for preteens and teens to learn about surgery and discuss concerns
- Time for parents to ask questions

Parents and siblings can also attend the pre-surgery class. To register, visit [primarychildrens.org/classes-events/preparing-for-surgery](https://primarychildrens.org/classes-events/preparing-for-surgery) or call 801.662.2824. You should register at least 3 days before surgery

- Bring the following with you to the hospital:
  - A water bottle to keep near your bed
  - Button-front pajamas and shirts and loose-fitting clothing
  - Favorite pillow or blanket (have extra pillows for the car ride home)
  - Favorite music and phone or mp3 player (the TV also has a music channel)
  - Books and DVDs
  - Personal items (deodorant, dental floss, brush or comb, hair ties, lotion, lip balm, toothbrush, and toothpaste)

- Feminine products (it's common for girls to menstruate during their hospital stay)

- Have your parents bring:
  - Paper and a pencil to take notes and write down questions
  - A journal to record what happens during the hospital stay
  - Comfortable clothes to sleep in
  - All needed phone numbers
- Put a plastic chair or bench, long-handled sponge, or handheld showerhead in your bathroom. Occupational therapy recommends this to make it easier to shower when you get home.

## Day of surgery

- Don't wear any jewelry the day of surgery. If you have long hair, braid it or put it in a ponytail so it doesn't get tangled. Don't put any elastics with metal, bobby pins, barrettes, or metal clips in your hair.
- Don't use any lotions, makeup, or sprays on your body the night before or day of surgery.
- Check into same-day surgery registration on the second floor at the south end of the hospital.
- You'll meet with a nurse practitioner to make sure you're healthy and can have surgery.
- Wipe down your body using CHG wipes before changing into hospital pajamas. Don't shave your legs the night before or day of surgery. The CHG wipes can make sensitive skin sting.
- Activities and internet will be available in your hospital room while you wait.
- The anesthesiologist will walk you and your family down the hall to a designated stopping point. You can give your family hugs, and they'll wait for you in the nearby waiting room.
- The anesthesiologist will give you sleeping medicine in an IV or have you breathe it in through a mask.



If you use a mask, you can choose the medicine scent to breathe in.

## After surgery

- You'll stay in a patient room in the neuroscience trauma unit (NTU) until it's time to go home. One adult can stay with you overnight.
- Your face, arms, hands and legs may swell. This will decrease within a day or two.
- You may be emotional or change emotions quickly for a while.
- Your parents can set up a calling tree to help you update friends and family about your progress. They might call one family member and have that person call or text others.
- You should limit visitors until the third day after surgery. Don't let visitors sit on or bump your bed, and tell them to be careful around you.

## Spinal fusion surgery guidelines

Day of surgery		Post-op day 1	Post-op day 2	Post-op day 3	Post-op day 4	Post-op day 5
Tests	Blood drawn in the morning (CBC)	Blood drawn in the morning (hematocrit)	Blood draws as needed	Blood draws as needed	Blood draws as needed	Blood draws as needed
Assessments	Vital signs every 4 hours Check for numbness every 4 hours	Vital signs every 4 hours Check for numbness every 4 hours	Vital signs every 4 hours Epidurals are removed	Vital signs every 4 hours	Vital signs every 4 hours	Vital signs every 4 hours
Wound care	Back dressing in place Hemovac drain from surgical site IV antibiotics	Back dressing in place Hemovac drain from surgical site IV antibiotics	Back dressing in place Hemovac drain from surgical site IV antibiotics	Back dressing removed; Steri-Strips <sup>TM</sup> kept in place Hemovac drain removed	Steri-Strips in place	Steri-Strips in place (these will slowly peel off on their own) May take a shower
Fever	Incentive spirometer every hour while awake Tylenol® as needed	Incentive spirometer every hour while awake Tylenol as needed	Incentive spirometer every hour while awake Tylenol as needed	Incentive spirometer every hour while awake Tylenol as needed	Incentive spirometer every hour while awake Tylenol as needed	Incentive spirometer every hour while awake Tylenol as needed
Pain control	Two back epidurals Tylenol, ketorolac, ibuprofen, and diazepam as needed Non-medicine tools (breathing, music, imagery, heat/cold)	Two back epidurals Tylenol, ketorolac, ibuprofen, and diazepam as needed Non-medicine tools	Start oral pain medicine (oxycodone) Epidurals removed Tylenol, ibuprofen, and diazepam as needed Non-medicine tools	Continue taking oral pain medicine as needed Non-medicine tools	Continue taking oral pain medicine as needed Non-medicine tools	Continue taking oral pain medicine as needed (must take medicine by mouth before going home) Non-medicine tools
Diet	Start with clear liquids Anti-nausea medicine as needed	Regular diet Anti-nausea medicine as needed	Regular diet Anti-nausea medicine as needed	Regular diet Anti-nausea medicine as needed	Regular diet Anti-nausea medicine as needed	Regular diet Anti-nausea medicine as needed
Bowel and bladder	Foley catheter to drain your bladder	Foley catheter to drain your bladder Take bowel medicine (senna and Miralax <sup>TM</sup> )	Foley catheter removed after epidurals Take bowel medicine	Urine in toilet Take bowel medicine Suppository or enema for bowel movement	Urine in toilet Take bowel medicine Suppository or enema for bowel movement	Urine in toilet Take bowel medicine Must have bowel movement to go home
Activity	Reposition every 2 hours No bending, lifting, or twisting	Reposition every 2 hours No bending, lifting, or twisting 10–20-minute bed mobility techniques	Reposition every 2 hours No bending, lifting, or twisting 20–30 minutes chair sitting and short walks	Reposition for comfort No bending, lifting, or twisting Longer walks, walking stairs	Reposition for comfort No bending, lifting, or twisting Go for walks on your own	Reposition for comfort No bending, lifting, or twisting Go for walks on your own

## Spinal surgery resources

The following resources can help you prepare for your surgery and manage pain during your recovery.

## Questions for my doctor

[illegible]



# Let's Talk About...

## Spinal fusion

Posterior spinal instrumentation and fusion (PSIF), also called spinal fusion, is a procedure to put the bones of the spine (vertebrae) into the correct position. The surgeon straightens the spine by fusing some of the bones in the back together with bone grafts and implants (including special rods and screws).

### Why do I need spinal fusion surgery?

You may need spinal fusion surgery if:

- You have scoliosis or kyphosis (spine curves sideways or rounds upward)
- You've injured the bones in your spine
- An infection, tumors, or injury have made your spine weak or unstable
- You had a spinal cord injury and developed musculoskeletal problems

### What happens during spinal fusion surgery?

During spinal fusion, you will be sedated so you don't feel any pain. The surgeon will make an opening in the lower back and split the muscles at the back of the spine. They will then put spinal bone screws into bones that are being fused together. The surgeon will insert rods to link the screws and put bone grafts between the bones being fused.

Most patients stay in the hospital 4–5 days after spinal fusion surgery to recover.

### How do I prepare for spinal fusion surgery?

To prepare for spinal fusion surgery:

- Avoid eating heavy foods 1–2 days before surgery.
- Follow instructions on when to stop eating or drinking before the surgery. If you eat or drink too soon before your surgery, it may be postponed or cancelled.



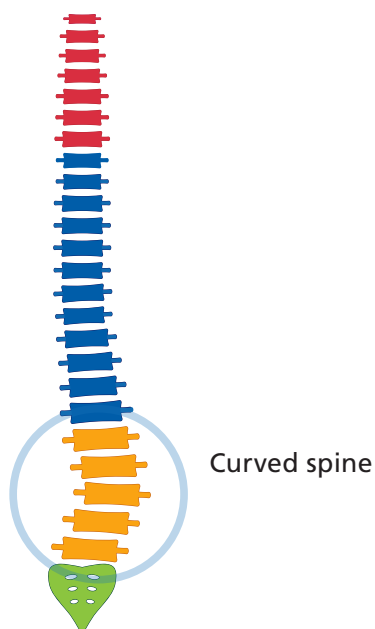
- Put together a bag with items that might help you recover at the hospital. This may include:
  - A robe
  - Button-front pajamas
  - Comfortable clothes to go home in
  - A toothbrush, toothpaste, shampoo, and body wash
  - A favorite blanket or pillow
  - Slippers
  - Music
  - Books or favorite movies

### What problems might I have after spinal fusion surgery?

After spinal fusion surgery, you may have:

- Nausea and vomiting caused by not eating for a while, anesthesia (medicine the doctor used to make you sleep), or other medicine
- Dizziness when sitting up after lying down for a while





- Constipation (unable to poop) because of anesthesia, pain medicine, and less walking around

Tell your healthcare provider if you have any of these symptoms. You may be able to take medicine to help with nausea and constipation. Drinking plenty of water, walking, and putting warm heat pads on your abdomen can also help with constipation.

If you will be leaving the hospital soon and still haven't been able to poop, a nurse may give you a suppository or enema. These are medicines put directly into your bottom to help you poop.

## Will I have any tubes after spinal fusion surgery?

When you wake up from surgery, you may have several tubes connected to you that you didn't have before surgery. These may include:

- **Urinary catheter (Foley):** This tube allows urine to drain from your bladder and is inserted while you are asleep in the operating room. A nurse will remove the catheter when they remove your epidural catheter.
- **Epidural catheter:** This tiny tube is inserted in your back during your surgery to put pain medicine directly into your back. A healthcare provider will remove the epidural catheter about 2 days after surgery, when you can take pain medicine by mouth.
- **IV:** An IV is a tiny, flexible tube put into a vein that will give you fluid and medicines. A nurse will remove all your IVs when you are ready to leave the hospital.
- **Hemovac:** A hemovac is a round, flat disk connected to a tube that removes any leftover blood from surgery. Your doctor will put the hemovac in your back next to your surgery site while you are sleeping to keep your bandage clean and dry. They will remove it 2–3 days after surgery.
- **Nasal cannula:** This tube sits just below your nose and gives you oxygen to breathe. You will use the cannula when you need it, but you may be able to take it off sooner by doing regular breathing exercises.

## What can I eat after spinal fusion surgery?

After surgery, you'll start drinking clear liquids like apple juice and gelatin. Your diet will change slowly until you are eating regular meals. It is important to drink plenty of liquids and eat high-fiber foods like fruits and vegetables so you aren't constipated.

## How will I manage my pain after spinal fusion surgery?

You will have some pain on your back from the surgery, but it will gradually decrease. Using a scale from 0–10, you and your nurse will set a goal for your after-surgery pain. Zero is no pain, and 10 is unmanageable pain.

To manage your pain, you may have:

- **IV PCA (patient controlled analgesia):**  
Pain medicine given through your IV with a machine that lets you control the medicine
- **IV PCAE (patient controlled analgesia epidural):**  
Pain medicine given through an epidural catheter with a machine that lets you control the medicine

Your nurse will tell you more about your individual pain management plan. Once you are eating and drinking enough, the pain team will change your medicines from IV or epidural medicine to pills or syrup you can take by mouth. You must take your medicine by mouth before you can go home.



## What can I expect the first few days after spinal fusion surgery?

- **Positioning:** It may be hard to move by yourself just after your surgery. Your nurses will help you change position so you are as comfortable as possible. Changing position will also help your skin and lungs stay healthy while you're in the hospital.
- **Physical therapy:** You will start physical therapy about 24 hours after your surgery. The physical therapist will visit twice a day Monday-Saturday and once on Sunday. You will start sitting at the edge of your bed, and you will gradually increase activity to sitting in a chair, walking, and climbing stairs. The physical therapist will help you reach your goals before you go home and make physical therapy as comfortable as possible.
- **Breathing exercises:** After surgery, you will do breathing exercises using a small device called an incentive spirometer. This will help keep your lungs open and healthy while you are in the hospital. Your nurse will remind you to do these exercises regularly.
- **Bathing:** You can usually take a shower 4 days after surgery or when your doctor says it's okay. After you shower, pat the Steri-Strips™ (paper tape holding your incision closed) dry. They may start to fall off once you begin showering again, but this is normal. Don't get your whole body wet in a bathtub, pool, or hot tub until your incision completely heals and your doctor says it's okay.

## What kind of activity can I do after spinal fusion surgery?

For 6 months after your surgery:

- Do not bend from the waist past 90 degrees.
- Do not lift anything heavier than 10 pounds.
- Do not twist excessively.

Ask your physical therapist how you can do your regular activities without bending, lifting, or twisting.



## When should I see my surgeon again after spinal fusion surgery?

You should see your surgeon again about 1 month after surgery or as the surgeon tells you to.

## What should I tell my dentist after spinal fusion surgery?

For the first year after surgery, you should take antibiotics if you are having a major dental procedure. Antibiotics are not needed for simple procedures like routine cleanings. Tell your dentist or oral surgeon you have a metal implant as well.

## When should I call my healthcare provider?

Call your healthcare provider (or ask a parent to) if:

- Your pain suddenly gets worse
- Your incision is red, warm, more swollen, or starts to spread apart
- You have a fever higher than 101°F
- You have new muscle weakness
- You lose sensation in your legs or back
- You lose or have a change in bowel or bladder control

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# Let's Talk About...

## Pre-surgery: Cleaning with CHG cloths

Everybody's skin has bacteria and germs on it. This is normal and usually does not cause illness. However, even normal bacteria and germs can cause an infection after surgery. Cleaning your child with chlorhexidine (klor- HEX-ih-deen) cloths (also called CHG) before surgery can prevent infections.

### How do I clean my child with CHG cloths?

- 1 Before you clean your child using the CHG cloths, first give them a bath with soap and water. Once you have washed and dried your child's skin, you can begin cleaning them with the CHG cloths.

When you are selecting the right amount of wipes for your child's weight, it is important to remember that bigger children need more cloths; smaller children need fewer.

Follow the guide in figure 1 to understand how many cloths your child will need for their size and which body parts you will need to wipe. In each package there are two cloths.

- 2 Allow your child's skin to air dry. Do not rinse the skin. It is normal for the skin to feel sticky for a few minutes after CHG bathing.



Less than 22 pounds (2 cloths, 1 package)	22-66 pounds (4 cloths, 2 packages)	66 pounds or more (6 cloths, 3 packages)
<b>First cloth:</b> Neck, chest, tummy, and arms  <b>Second cloth:</b> Back, legs, and buttocks  Do not wipe your child's private parts.	<b>First cloth:</b> Neck, chest, tummy, and arms  <b>Second cloth:</b> Back and buttocks  <b>Third cloth:</b> Legs  <b>Fourth cloth:</b> Groin  Do not wipe your child's private parts.	<b>First cloth:</b> Neck, chest, tummy, and arms  <b>Second cloth:</b> Right leg  <b>Third cloth:</b> Left leg  <b>Fourth cloth:</b> Back  <b>Fifth cloth:</b> Buttocks  <b>Sixth cloth:</b> Groin  Do not wipe your child's private parts.





# Let's Talk About...

## Breathing techniques

Learning breathing techniques can help you relax and relieve anxiety. It can also help you strengthen your lungs and make it easier to breathe. This is helpful if you have lung problems like asthma, cystic fibrosis, bronchitis, and pneumonia. These techniques include: diaphragmatic (belly) breathing, focused breathing, paced breathing, and square breathing.

### What is diaphragmatic breathing?

Diaphragmatic breathing is a technique that strengthens the diaphragm, a large muscle at the base of the lungs, while deeply breathing. You will learn to use the diaphragm instead of the upper chest muscles. Diaphragmatic breathing can help you relax, breathe more easily, and strengthen your diaphragm.

Diaphragmatic breathing does not take the place of medicines or other treatments, but it can help you breathe more easily in certain situations.

### How do I practice diaphragmatic breathing?

- Relax your neck and shoulder muscles.
- Get in a comfortable position by lying down or sitting.
- Place one hand on your upper chest and the other hand just above your waistline to feel the diaphragm move.
- Take a normal breath in through your nose and feel the hand on your stomach move outward. The hand on your chest should not move.
- Breathe out slowly and gently through your mouth with pursed lips, as if you were going to whistle. Let the hand on your stomach move inward as you breathe out.
- Exhale at least twice as long as you inhale. For example, count to 2 as you take air in. Then count to 4 as you breathe out.

### What is focused breathing?

Focused breathing is a technique that helps you focus only on your breaths in and out. It can help when you're feeling stressed or anxious. You can also practice focused breathing during meditation or while imagining a new scene (imagery).



### How do I practice focused breathing?

- Sit or lie down.
- Put your hands on your stomach or chest. Notice how your hands rise and fall as you breathe in and out. (If you are lying down, you might notice that your hands rise more on your belly than on your chest.)
- Breathe in through your nose like you are smelling a flower. Notice how your breath feels in your chest and belly.
- Breathe out like you are blowing out birthday candles.
- Each time you breathe out, notice that your body relaxes a little more. Repeat the exercises for 5–10 minutes.



## What is paced breathing?

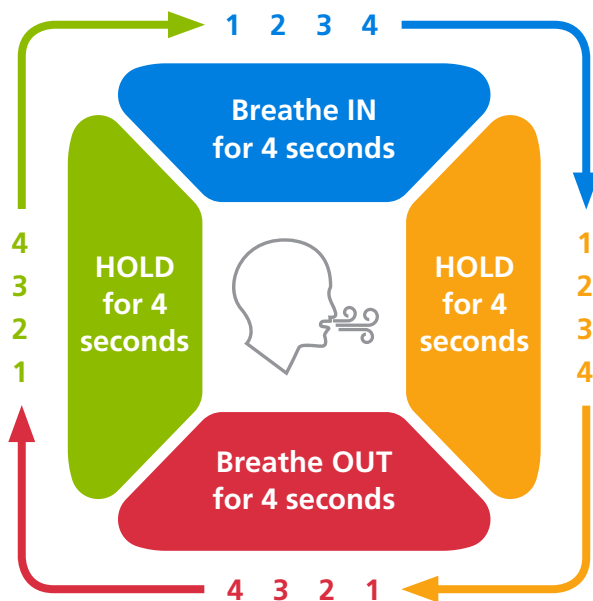
Paced breathing is a technique that helps you take slow, deep breaths using your diaphragm. It can help you relax when you're anxious and give them a sense of control. You can visualize paced breathing as slowly blowing bubbles, because it requires the same type of breathing.

## How do I practice paced breathing?

- Sit or lie down in a comfortable, quiet space.
- Set a timer for 5–10 minutes.
- Close your eyes and listen to the sound of a clock, metronome, or other repetitive sound.
- Think about how you breathe in and breathe out.
- Notice the pattern your breathing has with the sound you are listening to.
- Let yourself focus on the pattern as you continue to breathe in and out.

## What is square breathing?

Square breathing is a way to control your breathing through counts of 4. It can help you calm down and relieve stress. You can also use square breathing with meditation by visualizing a four-sided object, like a window or picture frame.



## How do I practice square breathing?

- Sit or lie down.
- Breathe in like you're smelling a flower while counting to 4.
- Hold your breath while counting to 4.
- Breathe out like you're blowing bubbles while counting to 4.
- Pause for 4 counts.
- As you breathe, draw a square in the air with your finger, beginning in the lower left corner.
- Repeat for 5–10 minutes.

## How can I make breathing techniques easier?

The following tips can help you make breathing techniques easier:

- Practice when you aren't stressed or in a lot of pain.
- Do the exercises daily for about 5–10 minutes at a time.
- Find a quiet place where you can sit or lie down comfortably with your eyes closed.
- Practice at least one of the techniques while lying down on your bed before falling asleep.

## Notes

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## Let's Talk About...

# Counterstimulation techniques: Using sensory distraction

Counterstimulation is a way of distracting the brain when it is sending pain or stress signals. To do this, you block these signals by sending another loud signal to the brain using one of the 5 senses (touch, sight, sound, smell, and taste).

### How can I use counterstimulation?

To create counterstimulation signals:

- Set a timer for 3–5 minutes
- Practice the signals several times a day
- Close your eyes

### What are some examples of counterstimulation techniques?

#### Touch

Focus on how your skin feels, using temperature or pressure.

- Apply ice or heat packs.
- Use heavy objects like a weighted blanket.
- Play with something sticky or messy, like clay or dough.
- Massage or push a pressure point with your fingers.
- Rub your hands together until you can feel heat.

#### Sight

Focus on a single object you can see, using color or texture.

- Look at a picture book or photo.
- Get a fish tank or lava lamp.
- Watch your pets play.
- Point out anything outdoors (ocean, trees, sky, mountains).



#### Sound

Focus on a single sound or many sounds.

- Play music or listen to live instruments or playlists.
- Listen to the sounds around you.
- Use a fan, furnace, or vacuum for background noises.
- Turn on a clock, metronome, or other paced sound.

#### Smell

Focus on a smell and breathe it in.

- Smell citrus fruits, like lemons or oranges.
- Use essential oil concentrates (peppermint, eucalyptus, cinnamon, and lavender).
- Apply scented muscle rubs or lotions.



## Taste

Focus on a taste and feel it on your tongue.

- Suck on hard candies or mints (butterscotch, peppermint, or cinnamon).
- Let chocolate melt on your tongue.
- Try frozen or cold fruit, ice water, or ice cream.
- Eat tart or sour foods like lemons, limes, and apples.



## Notes

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# Let's Talk About...

## Imagery techniques

You can use imagery to imagine you're somewhere else. Just by imagining a relaxing place or thinking relaxing thoughts, you can reduce pain and feel less stress.

### How do I pick the right imagery?

Everyone is different and finds different scenes calming. To create imagery that will help you relax:

- **Consider your interests.** Do you prefer to be outside or inside? Are you social and active? Do you like to be alone?
- **Think about your favorite place.** Visualizing a vacation spot or even a cozy space in your home can help you relax. Make sure this is a safe, comfortable place.
- **Decide whether to include action.** If you have a sensory processing disorder, you may find an active scene where you're playing sports or running more calming. This scene may also make you excited instead of relaxed. Decide what works best for you.
- **Include all five senses.** Effective imagery helps you see, hear, feel, smell, and taste different things while you imagine a scene.
- **Read the scene or have someone help you memorize it.** It may be helpful to read the scene each time, or you can try to remember everything when you close your eyes after reading it a few times. You can also record yourself or a parent reading the scene and play it back when you need to relax.

### What are some imagery examples I can use?

You may find one of the following imagery examples helpful. You can also create your own relaxing scene on the next page.

### Beach scene

You are lying back in a chair on the shore of a beautiful beach. You can hear the waves crashing against the shore, the sound of seagulls flying, and people splashing in the water. You feel the sand beneath your feet, the warmth of the sun, and a slight breeze brushing gently against your skin. When you look around, you see white, glistening sand stretching for miles in either direction. You see an endless blue sky over the blue-green ocean. You take in a deep breath and smell the salt in the air. You can even taste the salt in the air. You lie there with your eyes closed and take in the warmth of the sun and the sounds of the ocean. You feel relaxed and comfortable.







### Mountain scene

You are sitting on the porch of a log cabin near the mountains. When you look around, you can see snow cresting the peaks, tall green trees, and a few deer grazing in the meadow. You feel a cool breeze ruffling your hair and smooth boards beneath your feet. You smell lavender, sage, and pine trees as you take a deep breath. You can hear a stream trickling nearby and the gentle creak of your chair on the porch. You taste warm homemade bread and take a sip of rich hot chocolate. Everything around you is peaceful and quiet.

### Baseball scene

You are in the middle of a baseball game. You can hear your friends cheering your name as you take the bat and step up to home plate. When you look around, you see the bleachers packed with people and the glowing scoreboard that shows both teams are tied. You smell corndogs, popcorn, and freshly cut grass and feel the weight of the bat in your hands. You see the pitcher blowing a bubble with their chewing gum and throwing the ball. As if in slow motion, you feel your bat connect with the baseball and hear a loud TING as the ball flies over the field. You drop the bat and run to first base, then second, tasting a bit of dirt in your mouth as you dash to third base. You sprint to home base just as the pitcher throws the baseball to the catcher. You're safe — and your home run just won the game!

### Creating imagery

In the space below, create a relaxing scene with as much detail as possible.

Where are you? Is it warm or cool? Sunny or cloudy? Calm or windy? Day or night?

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Describe what you're doing. Are you alone or with others? Are you moving quickly or slowly?

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Describe all the things you see.

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Describe all the things you hear.

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Describe all the things you smell.

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## Let's Talk About...

# Progressive muscle relaxation

Relaxing muscles can help you relieve stress and tension, manage pain, and even sleep better. To prepare for muscle relaxation exercises:

- Make sure you have at least 15 minutes to practice so you don't feel rushed.
- Sit or lie down comfortably.
- Find a quiet place where no one will disturb you.
- Choose a time when you're calm so it's easier to practice. You can do the exercises anytime, not just when you feel stressed.
- Be ready to try each exercise for 10 seconds and then relax for 20 seconds.
- Think about tightening your muscles and relaxing them if it's too uncomfortable to tighten them.

## Muscle relaxation exercises for kids 2–10 years old

- **Hands and arms:** Pretend you are squeezing a whole lemon in your left hand. Squeeze it hard. Try to squeeze all the juice out. Feel the tightness in your hand and arm as you squeeze. Now drop the lemon and relax. See how much better your hand and arm feel when they are relaxed. Repeat with the other hand.
- **Arms and shoulders:** Pretend you are a lazy kitten who wants to stretch. Stretch your arms way out in front of you. Raise them up as high as you can over your head and lean way back. Feel the stretch in your arms and shoulders. Now really stretch, as far as you can. Now, let your arms fall down to your sides. Now start the stretch again.
- **Shoulders and neck:** Pretend you are a turtle, sitting in the sun. It's nice and warm and quiet. Uh-oh. You hear something. You'd better pull your head into your shell just to be safe. Pull your shoulders way up to your ears, and push your head down to your chest. Stay in your shell, nice and

snug. Now stretch back out into the relaxing sunlight. Pretend you hear another noise, and practice getting back into your shell again.

- **Jaw:** You have a huge piece of bubble gum in your mouth, and it's really hard to chew. Bite down on it hard! Let your neck muscles help you. Now just relax and let your mouth hang loose. Notice how good it feels to just let your mouth drop. Now take another bite. Repeat.
- **Face and nose:** Here comes a pesky fly, landing right on your nose. Try to get him off without using your hands. Wrinkle up your nose. Make as many wrinkles as you can. Scrunch your nose right up. Good, he is going away! You can relax your nose. Oops, he is coming back again. Repeat.



- **Stomach:** Hey! Here comes a cute baby elephant. He's not watching where he is going. He doesn't see you relaxing there, and he's going to step on your stomach. Don't move, just get ready for him. Make your stomach very hard. Tighten up your belly really, really tight. Hold it. Whew! Looks like he missed you, so you can let your belly relax now. Make it really soft. That feels so much better. Get ready, here he comes again! Repeat.
- **Legs and feet:** Pretend you are barefoot and your feet are in a big, fat, pot of mud. Squish your toes down deep in the mud. Try to stretch your feet all the way to the bottom of the bucket. Spread out your toes and feel the mud squish between them. Really stretch! Now just let them relax, and let your toes go loose. Feel how nice that is. Now let's try again. Repeat.

## Muscle relaxation exercises for kids 11–18 years old

Read and do the following muscle relaxation exercises. Tighten (or think about tightening) muscles for 10 seconds and then relax for 20 seconds before repeating or going to the next exercise.

- **Upper and lower arms:** Bring both arms to your shoulders, as if making a muscle. Make a fist with each hand.
- **Legs and thighs:** Straighten your legs and raise your feet off the ground. Point your toes towards your knees, tensing the muscles in your calves and thighs.
- **Shoulders:** Push your shoulders up towards your ears, as if shrugging your shoulders.

- **Neck:** Press your head tightly backward against the chair, couch, or bed. You might also try rolling your head around on your neck slowly in one direction and then the next direction. Pay attention to any tension in either direction.
- **Lips:** Press your lips together tightly, as if you've just put lip balm on. You might also try puckering your lips, like a kiss.
- **Jaw:** Clench your teeth (not too tightly) or open your mouth wide.
- **Eyes:** Close your eyes somewhat tightly, but do not squeeze them shut.
- **Forehead:** Raise your eyebrows upward so your forehead wrinkles.

Repeat the exercise for each muscle group at least once. You can repeat the exercises several times for muscles that are harder to relax.

## How can I make muscle relaxation exercises easier?

The following tips can make it easier to do muscle relaxation exercises:

- Practice several times a day or at night before falling asleep. The exercises will become easier with time.
- Try the exercises when you're feeling OK. You may begin doing the exercises automatically after a while when you're stressed or feeling pain.
- Let go of tension, relax, or unwind when you're relaxing muscles for 20 seconds. You can also visualize your muscles as warm or heavy.

## Notes

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## Let's Talk About...

# Thought-replacement techniques

Thought-replacement is a series of techniques that help you replace negative or anxious thoughts with positive ones. By practicing thought-replacement techniques, you can change the way you think and begin to feel better.

### What thought-replacement techniques can I use?

One thought-replacement technique that may help is called “Changing the channel in your brain.” It uses thought-stopping and replacement thoughts to help you feel better.

When a TV show you don't like comes on, do you have to keep watching it? No, you can switch to a show you like better. The thoughts in your brain are like that too. When you get stuck on a bad thought — “This hurts so much. It's never going to go away, and I can't deal with this.” — you have the power to switch to a helpful thought. It takes practice, but you can do it.

You can also create a positive statement to repeat to yourself when a bad thought comes to mind. You might say:

- “I can handle this.”
- “I can do hard things.”
- “I have coped with this before.”



## How do I practice thought-replacement?

- Sit or lie down in a quiet place and close your eyes.
- Notice when you have a thought that worries or upsets you or makes you feel worse. When you catch one, tell yourself, "That's a bad thought."
- After you've caught your bad thought, imagine yourself using a remote to change to a positive thought.
- Think about the thought you want to watch in your mind. Picture a good memory that makes you laugh or feel proud or happy. Build all the details so it feels like you're really there. Or think of something in the future you're looking forward to. Picture what it will look or feel like when you're doing that thing. Focus on all the details, like you're making a movie in your mind.
- Let your body relax as you focus on the new thought.
- Practice changing to a new thought in your brain whenever you catch your mind thinking unhelpful thoughts. Have a few different "shows" or memories you enjoy so you always have something good to switch over to when you need it.

## Notes

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

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