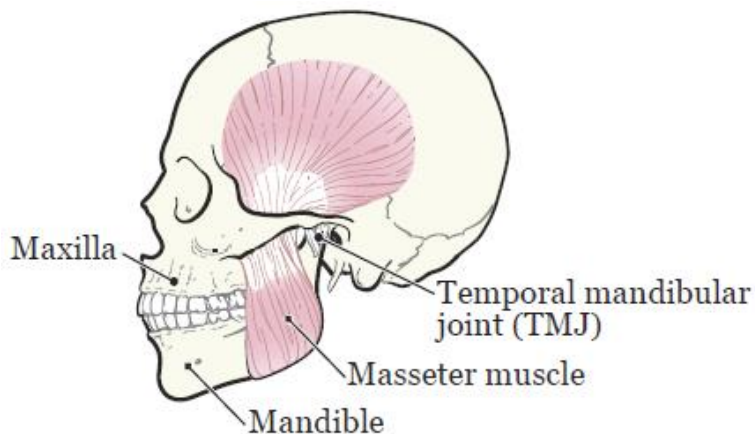


Recommendations for Limited Jaw Opening (Trismus) and Temporomandibular Disorders (TMD),

Preventing Trismus

This information will help you prevent trismus (lockjaw) during and after your surgery or radiation therapy. Trismus is when you can't open your mouth as wide as usual.

About Your Jaw



Your jaw is made up of a pair of bones that form the framework of your mouth and teeth (see Figure 1). Your **maxilla** is your upper jaw bone.

- Your **mandible** is your lower jaw bone.
- Your **temporomandibular joint (TMJ)** is where your mandible connects to your skull.
- Your **masseter muscle** is the muscle that connects your mandible to your skull.

Figure 1. The bones and muscles of your jaw



Many muscles and nerves around your jaw work together to open and close your mouth. Most people can open their mouth 35 to 55 millimeters (1.4 to 2.2 inches), which is about the width of 3 fingers (see Figure 2).

Figure 2. Normal width of an open mouth

About Trismus

Trismus can happen anytime during, right after, or even years after your treatment. It can happen:

- If you have a tumor that involves the bones, muscles, and nerves that open your mouth.
- After surgery to your head and neck.
- After radiation therapy to your head and neck.

Trismus can happen if you develop fibrosis (scarring) as the tissues start to heal after surgery. Fibrosis can also build up years after radiation therapy. When you can't open your mouth well, it's hard for your healthcare provider to examine the area. You may also have problems with:

- Oral hygiene (cleaning your mouth and teeth). This can lead to bad breath, cavities, and infections.
- Chewing and swallowing. This can make it hard for you to eat and drink.
- Talking.
- Kissing.
- Having a breathing tube placed, such as if you ever need general anesthesia (medication to make you sleep during a surgery or procedure).
- Having routine dental treatment.

Once trismus develops, it's very hard to treat. That's why it's important to prevent trismus and treat it as early as possible.

How to Prevent Trismus

There are 4 main ways to help prevent trismus:

- Massage your jaw muscles.
- Exercise your jaw muscles.
- Keep good posture.
- Keep good oral hygiene.

Even if you don't have any symptoms, you should do these things to help prevent problems. Follow the instructions in the sections below. If you have had surgery, ask your healthcare provider if it's safe before you start.

It may be helpful to use a timer or clock to make sure you hold the stretches long enough. Remember to breathe normally and don't hold your breath. If you feel pain, numbness, or tingling, stop right away and call your healthcare provider's office.

Massage your jaw muscles



Place your index (pointer) and middle finger on your cheek bone. Run your fingers down over your masseter muscle, which ends at your bottom jaw (see Figure 3). As you move your fingers, find areas that feel tender or tight. Massage these areas with your fingers in a circular motion for 30 seconds. Do this 2 to 3 times every day.

Try not to clench your jaw when you're stressed or out of habit. This will help keep your jaw muscles relaxed.

Figure 3. Massaging your jaw muscles

Exercise your jaw muscles

- ✓ **Do these exercises 3 times every day.** You can do them while sitting or standing. Use a mirror to help you do them correctly.
- ✓ These movements should give you a good stretch, but they shouldn't cause pain. If an exercise is causing pain or discomfort, try doing the stretch more lightly. If you still have pain or discomfort, contact your healthcare provider.

Passive stretching exercise



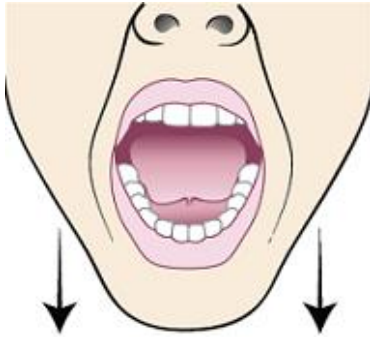
Repeat these steps 5 times.

- Place your thumb on your top teeth in the middle of your jaw.
- Place the index finger of your other hand on your bottom teeth in the middle of your jaw (see Figure 7).
- Open your mouth as wide as you can. Use your fingers to give extra resistance to keep it from closing. You should feel a light stretch, but not pain. Hold this stretch for _____ seconds.

Figure 4. Place your thumb and index finger on your teeth

Active range of motion and stretching exercises

Hold your head still while doing these exercises. Repeat these steps 5 times.



1. Open your mouth as wide as you can, until you feel a good stretch but no pain (see Figure 5). Hold this stretch for 10

Figure 5. Open mouth as wide as you can



2. Move your lower jaw to the left (see Figure 6). Hold this stretch for 3 seconds

Figure 6. Jaw moved to the left



3. Move your lower jaw to the right (see Figure 7). Hold this stretch for 3 seconds

Figure 7. Jaw moved to the right

Keep good posture



Good posture means sitting and standing with your ears, shoulders, hips, knees, and ankles aligned (see Figure 8). You need to keep your neck and shoulders strong and flexible to have good posture. The following exercises will help you do this.

Figure 8. Good posture

Do the following exercises 2 times every day. You can do them while sitting or standing with your arms at your sides.

Neck stretch

Repeat these steps 5 times. Hold each stretch for 30 seconds.

1. Bend your head forward (see Figure 9). Bend your head backward (see Figure 10).
2. Turn your head to the right (see Figure 11). Turn your head to the left (see Figure 12).
3. Bend your head to the right (see Figure 13). Bend your head to the left (see Figure 14).



Figure 9. Head bent forward



Figure 10. Head bent back



Figure 11. Head turned to the right



Figure 12. Head turned to the left



Figure 13. Head bent to the right



Figure 14. Head bent to the left

Chin tuck

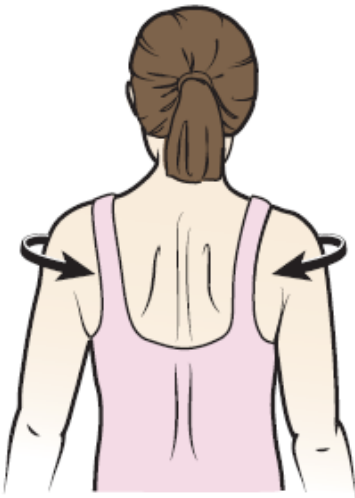


Repeat these steps 5 times.

1. While looking forward, tuck your chin.
2. Pull your head back to line up your ears with your shoulders (see Figure 15). Hold this position for 3 seconds.

Figure 15. Chin tucked and head pulled back

Shoulder blade pinch



Repeat these steps 5 times.

1. Tuck your chin as described in the chin tuck exercise above.
2. Pinch your shoulder blades together as tightly as possible (see Figure 16).
3. Hold this position for 3 seconds.

Figure 16. Shoulder blades pinched together

Keep good oral hygiene

- Brush your teeth and tongue when you wake up, after each meal, and before you go to bed.
- If you have removable dentures or a dental prosthesis, take it out and clean it each time you clean your mouth. Don't sleep with it in your mouth.
- Floss your teeth once daily before you go to bed.