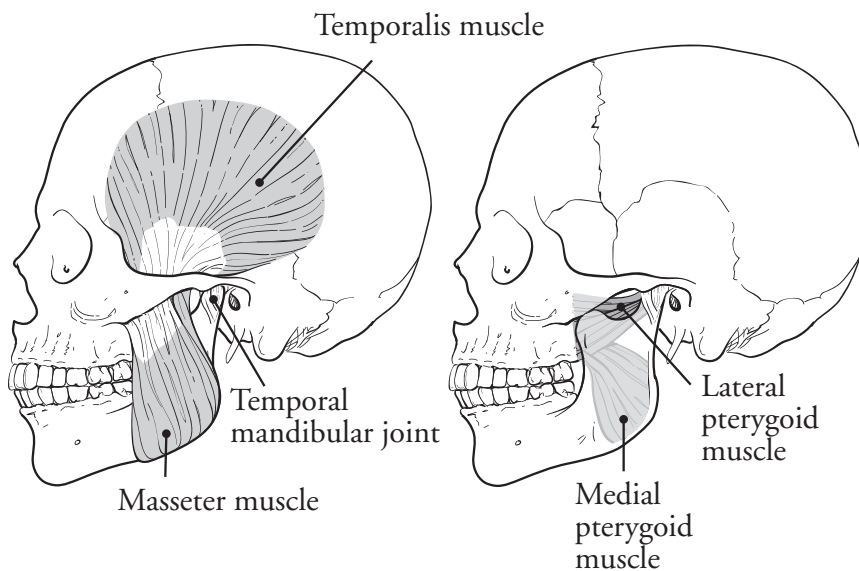


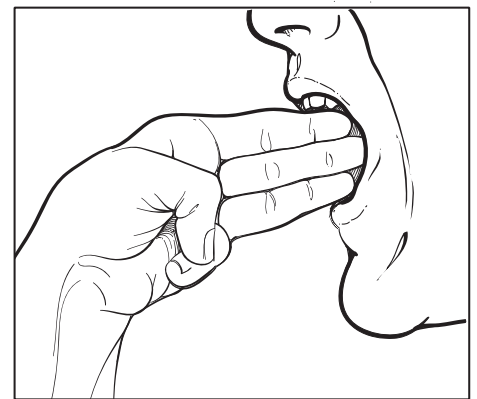
# Trismus

## Normal Jaw Function

The jaw is a pair of bones that form the framework of the mouth and teeth. The upper jaw is called the maxilla. The lower jaw is called the mandible. The mandible connects to the skull at the temporomandibular joint (TMJ).



Many muscles and nerves around the jaw work together for you to open and close your mouth. Mouth opening varies from person to person. It is usually 35-55 millimeters. This distance is usually equal to the width of three fingers.



## Effects of Tumor and Treatment on Jaw Function

Trismus is an inability to open the mouth normally. Trismus can occur:

- If a tumor involves the muscles and nerves that open the mouth.
- After surgery on the head and neck.
- After radiation to the head and neck.

Surgery and radiation can injure the tissues involved with opening the mouth. Scarring (fibrosis) can occur as the tissues begin to heal from surgery. Fibrosis can also build up and become apparent years after radiation. Muscle and other fibers shorten and tighten. This makes it harder to open your mouth. When you cannot open your mouth well it is hard for your doctor to examine this area. You may also have problems:

- Cleaning your mouth and teeth. This may lead to bad breath, cavities, and infections.
- Chewing and swallowing. This may make it difficult for you to eat and drink.

- Talking.
- Kissing.
- Having a breathing tube placed if you ever need general anesthesia.
- Having routine dental treatment.

Trismus can occur during or after treatment. It can even occur years later. Once it occurs, it is very hard to treat. Prevention and early treatment are the goals.

## Ways to Prevent Trismus

There are four ways to help prevent trismus. Even if you don't have any symptoms, you should do these to prevent problems:

- Maintain good oral hygiene.
- Maintain good posture.
- Massage your jaw muscle.
- Exercise your jaw muscles.

There are a number of exercises described below. During the exercises breathe normally. Do not hold your breath. If any of these exercises cause pain, numbness, or tingling, stop them right away and call your doctor or nurse. If you have had surgery, check with your doctor or nurse before you begin these exercises.

### Maintain Good Oral Hygiene

- Brush your teeth and tongue after each meal and at bedtime.
- If you have removable dentures or a dental prosthesis, take it out and clean it each time you clean your mouth. Do not sleep with removable prostheses.
- Floss your teeth once daily at bedtime.

### Maintain Good Posture

Good posture means sitting and standing with your ears, shoulders, hips, knees, and ankles aligned.

To maintain good posture you need to keep your neck and shoulders strong and flexible. The exercises listed below will help to do this. **Do these exercises twice a day.**



### Neck Stretching

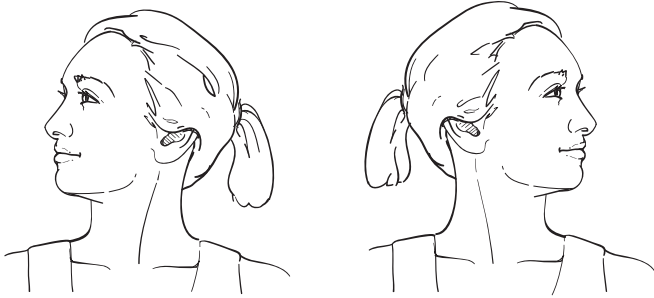
Sit or stand with your arms at your side. Hold each stretch for 30 seconds.

1. Bend your head down.
2. Extend your head backwards.



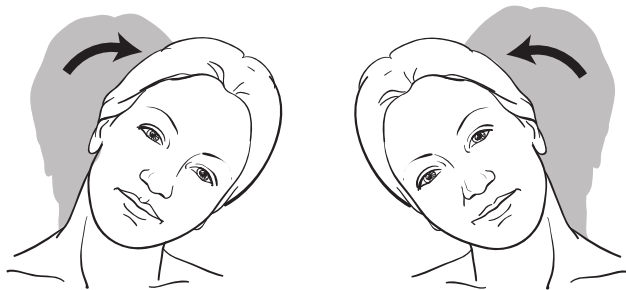
3. Rotate your head to the right.

4. Rotate your head to the left.



5. Bend your left ear to your left shoulder.

6. Bend your right ear to your right shoulder.



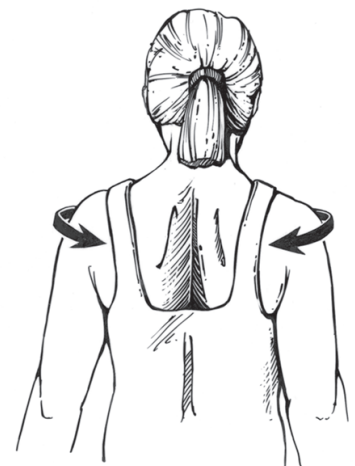
### **Chin Tuck**

Sit or stand with your arms at your side. While looking forward tuck your chin. Pull your head back to line up your ears with your shoulders. Hold for 3 seconds. Perform 10 times slowly.



### **Shoulder Blade Pinch**

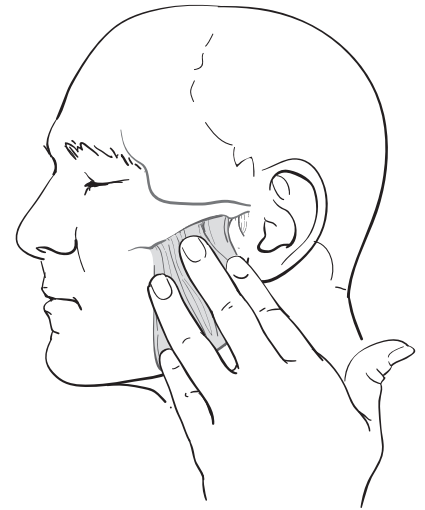
Sit or stand with your arms at your side. Hold the chin tuck above. Pinch your shoulder blades together as tightly as possible. Hold for 3 seconds. Perform 10 times slowly.



## Massage Your Jaw Muscle (Masseter Muscle)

Place your index and middle finger on your cheek bone. Run your fingers down over your masseter muscle, which ends at your bottom jaw. As you move your fingers find points that feel tender or tight. Massage each area in a circular direction for 30 seconds.

To keep your jaw muscles relaxed all the time, avoid clenching your jaw when stressed or out of habit.



## Exercise Your Jaw Muscles

Use a mirror for these exercises to help you do them correctly. These movements should cause a stretching sensation but should not cause pain.

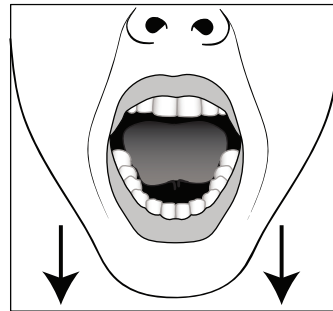
### Active range of motion and stretching exercises

Sit or stand. Hold your head still while doing these exercises.

1. Move your jaw as described below.

Hold each position for 3 seconds. Repeat 5 times.

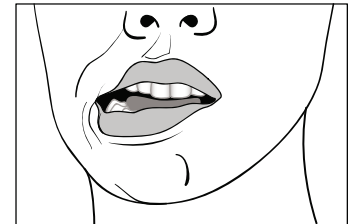
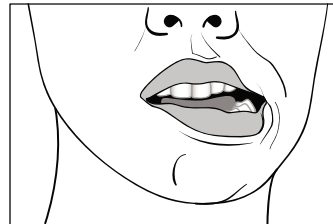
- Open your mouth wide.
- Move your jaw to the left.
- Move your jaw to the right.



2. Repeat each position once more.

This time stretch each for 30 seconds.

3. Combine these movements to move your jaw in a circle. Open and close your mouth as you rotate your jaw left to right. Make 5 circles.



4. Repeat the circle in the other direction. Make 5 circles.

### Passive stretching exercises

Place one thumb on your upper teeth in the middle of your jaw. Place the pointer (index) finger of your other hand on lower teeth in the middle of your jaw. Stretch your jaw open by pushing your bottom jaw down with pointer finger. Hold this stretch for 30 seconds.



## What to do if You Develop Tightness when Opening Your Mouth

Remember, trismus can occur any time during, right after, or even years after your treatment. If you notice any tightening in your jaw call your doctor or nurse right away. They can refer you to:

- **Speech/swallowing specialists** and **physical therapists**. They can help you maintain and restore your ability to open your mouth. They use many techniques such as exercise, stretching, and massage. They may also recommend special devices to help you open your mouth.
- **Rehabilitation doctors**. They will assess your ability to open your mouth. They may use medicine for pain or spasms or suggest other treatments to help you.

The earlier you start treatment for trismus the easier it will be to restore your jaw function.

