What is Mucositis?

Mucositis may also be called mouth sores, oral mucositis, or esophagitis. It can be anything from a red, sore mouth and/or gums to very painful open sores, causing you to be unable to eat.

Patients receiving radiation therapy to the head and neck area or those receiving certain types of chemotherapy are at risk of having mucositis. Other causes of mucositis include:

- Infection.
- Dehydration.
- Poor mouth care.
- Oxygen therapy.
- Drinking too much alcohol.
- Using tobacco.
- Lack of protein in the diet.

Mucositis leads to several problems including pain, problems with nutrition and being unable to eat, and a higher chance of infection due to open sores. Mucositis can impact your quality of life and can be dose-limiting (meaning you will need lower doses of chemotherapy in the future).

Signs and symptoms of mucositis are:

- Red, shiny or swollen mouth and gums.
- Blood in the mouth.
- Sores in the mouth, on the gums or tongue.
- Soreness or pain in the mouth or throat.
- Having a hard time swallowing or talking.
- Feeling of dryness, mild burning, or pain when eating food.
- Soft, white-ish patches or pus in the mouth or on the tongue.
- More mucus or thicker saliva in the mouth.

Talk to your healthcare team about your risk of getting mucositis. Patients at risk for mucositis should perform oral/mouth care to help prevent mucositis.

Special care should be taken to help the mouth and throat heal if mucositis does develop. There have been studies done about the use of oral cryotherapy. Oral cryotherapy is the practice of eating ice chips and ice water during the infusion of some types of chemotherapy to prevent mucositis. Ask your provider if this is right for you and the type of therapy you are receiving.

Suggestions for an oral care plan:

- Check the entire mouth twice a day using a small flashlight and tongue blade (tongue depressor). If you wear dentures, remove them and look under the plates. Report any changes to your provider.
- Rinse your mouth (swish, lightly gargle and spit) before and after meals and at bedtime with either:
  - Salt water (1 tsp of table salt to 1 quart [32 oz.] of water) or;
  - Salt and Soda rinse (1 tsp of salt and 1 tsp of baking soda in 1 quart [32 ounces] of warm water).
- Use a soft-bristle toothbrush after meals and at bedtime. Soaking in hot water can make the brush bristles softer. If the
brush causes pain, toothettes may be used (but these are not as effective as a soft or super soft brush).

- Use non-abrasive toothpaste (or mix 1 tsp baking soda in 2 cups water). Avoid toothpastes with whiteners or other additives.
- Keep lips moist with moisturizers (like Chap stick® or Blistex®).
- Avoid products that irritate the mouth and gums:
  - Avoid commercial mouthwashes and those with alcohol.
  - Limit use of dental floss. DO NOT use floss with platelets below 40,000. Your provider will keep you updated about your blood levels.
  - Do not use lemon or glycerin swabs or toothbrushes without soft bristles.
- Make dietary changes to decrease pain and discomfort, and to promote healing of mouth sores.
  - Increase your fluid intake. Try to drink 3 quarts (about 12 cups) of fluid per day, unless your provider tells you not to do so.
  - Include foods high in protein such as dried beans, poultry, eggs, peanut butter, meat, fish, and dairy products, such as milk, cheese and yogurt (Greek yogurt is higher in protein than others). Nutritional supplement shakes like Ensure®, Boost® can also provide calories and protein.
  - Avoid hot, spicy, greasy, or fried foods.
  - Avoid alcohol.
  - Avoid citrus fruits and juices such as oranges, lemons, limes, and tomatoes as these may be too acidic. Try apricots, pears or peaches instead.
  - Avoid hard or coarse foods such as crusty bread, crackers, raw vegetables, potato chips, tortilla chips and pretzels.
  - Avoid carbonated beverages like soda and seltzer.
  - Try soft foods like puddings, jello, soups, etc.
  - Cold treats like popsicles and water ice can be soothing to mouth sores.
  - Eat whenever you are hungry, even if it's not mealtime.
  - Eat smaller, more frequent meals throughout the day, rather than three large meals. Create a nice environment when eating to stimulate your appetite.
- If you wear dentures:
  - Clean dentures daily.
  - Remove at night and whenever possible to expose gums to air.
  - Loose-fitting dentures can irritate the mouth and gums and should not be worn.
  - Do not wear dentures if mouth sores are severe.
- Do not smoke cigarettes, cigars, or pipes. Do not use smokeless tobacco (chewing tobacco, snuff).

When should I call my provider?

Mouth sores should not be ignored, since they can cause you to eat and drink less, can be a source of infection, and can cause pain and discomfort. Call your provider right away if you have any one or more of the following:

- Redness or shininess in the mouth that lasts for more than 48 hours.
- When you first notice any type of cut or sore in the mouth.
- Bleeding gums.
- Have pain or a hard time with eating or swallowing.
- Oral temperature above 100.4 °F (38.0 °C), chills or sweats.
- Weight loss of 5 pounds or more since the mouth sores began.

How are mouth sores treated?

Mouth sores generally must heal on their own. Continuing to perform good mouth care can help speed the healing process along. If mouth pain is making it hard to eat and swallow, your provider may prescribe a mouth rinse to temporarily numb the mouth, or an oral pain medication. If weight loss from poor intake of food and fluids is a problem, you may be referred to a...
dietician. If necessary, your care team may decide to delay further treatments until the mouth sores have healed.

If you have any questions about mouth sores, or need additional information and direction, ask your provider.