

Division of Oral Medicine and Dentistry

Oral Mucositis

What is oral mucositis?

Oral mucositis is a common side effect of many drugs used to treat cancer (chemotherapy). It is also common among patients receiving radiation therapy for cancers of the mouth, salivary glands, sinuses and throat. Mucositis occurs when the cells and tissues of the mouth are injured by cancer treatment, which cannot distinguish between 'good' normal cells or 'bad' cancer cells. As a result the lining of the mouth breaks down and forms painful ulcers. The severity of mouth ulcers may vary among patients with some patients being more able to tolerate them than others. Such ulcers can occur anywhere in the mouth, but are most common on the tongue, inside cheeks, lips and soft palate (very back of the mouth). Although mucositis may be dramatic for a period of time while you are being treated, the ulcers almost always heal by themselves within a few weeks of completing cancer treatment.

What causes oral mucositis?

Chemotherapy or radiation therapy cannot distinguish between normal cells and cancer cells. A consequence of effective destruction of your cancer may be unintended collateral damage to normal tissue like your mouth. Not all forms of chemotherapy are equally likely to cause mucositis and patients vary in their individual risk of developing mucositis, probably based on genetics and other factors. Every patient is different, but the overall risk of developing mucositis if you are getting chemotherapy is about 40%. The risk is slightly higher (50-70%) if you are being treated with radiation for cancer of the head and neck, depending on the location of your tumor.

Chemotherapy-associated oral mucositis develops 7-10 days after start of chemotherapy and may last for up to two weeks before healing. If you are getting cycled chemotherapy (the kind that is repeated about once a month), mucositis may recur with each treatment cycle. Mucositis associated with radiation therapy usually becomes significant around the third week of treatment and remains until a few weeks after completion of radiation therapy before healing.

Treatment with a class of chemotherapy (and immunosuppressive) agents called "mammalian target of rapamycin inhibitors", or mTOR inhibitors (such as Rapamune and Affinitor), is also associated with development of oral ulcers. Unlike mucositis described above, this is characterized by painful ulcers that look like canker sores. These typically develop within the first 1-2 weeks of mTOR inhibitor therapy and tend to subside after a few weeks even with ongoing therapy.

Oral mucositis is not infectious in nature and you cannot spread it to family or friends.

How do we know it is oral mucositis?

Mucositis is common. Your doctor can generally make a diagnosis based on the timing of your symptoms relative to your therapy and the clinical appearance of your mouth. There is no laboratory or radiographic testing that is needed to make the diagnosis. Because viral or fungal (yeast) infections can occur in your mouth, especially if your white blood cell count is low, your doctor will want to rule these out. If so, a culture, or a scraping may be done to rule out an infection.

How do we treat oral mucositis?

Mucositis is treated symptomatically depending on the severity and extent of discomfort. Various mouth rinses, including salt water, viscous lidocaine (a prescription numbing gel) as well as "magic mouthwash", can be helpful in providing symptomatic relief. One version of "magic mouthwash" consists of mixing equal amounts of viscous lidocaine with BenadrylTM and either KaopectateTM or MaaloxTM. If in spite of using these rinses, your mouth is still uncomfortable, you should also feel free to discuss the use of other pain medications with your nurse or doctor. You should try to avoid coarse, crunchy foods, as well as acidic and spicy foods during this period while maintaining your nutrition and hydration by drinking plenty of water. If you wear dentures, try to leave them out as much as possible to avoid irritating your mouth.

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Patients with good oral hygiene tend to have less mucositis. Members of your oncology team can teach you the best way to keep your mouth clean while you are undergoing treatment.

If you are experiencing mucositis related to mTOR inhibitor therapy, your doctor may prescribe a topical steroid.

What to expect?

Oral mucositis is a self-limiting condition that follows a fairly predictable course. The duration and severity can vary greatly based on the specific cancer therapy. After healing, there are no residual symptoms or consequences of oral mucositis. It is important that you inform your doctor or nurse at the earliest onset of any mouth discomfort so that appropriate measures can be started to ensure that you are able to tolerate this side effect of therapy.