Mouth/Dental Care After a Bone Marrow Transplant

If your platelet count is greater than 75,000/mm3, dental cleanings, fillings, root canals and extractions can usually be safely performed as long as these procedures are coordinated and approved by your medical oncologist. If emergency dental care is needed when the platelet count is below 50,000/mm3, a platelet transfusion may be necessary before the dental procedure.

If an indwelling catheter is present or you have a low white blood cell count, it may be necessary to take a dose of antibiotics one hour prior to some dental procedures. Please ask your oncologist about this possible recommendation.

The use of daily fluoride is recommended for patients experiencing the following:

- Radiation to the head and neck areas
- Total body irradiation (TBI)
- Allogeneic (sibling or unrelated donor) bone marrow transplantation
- Long-term chemotherapy
- Chronic dry mouth
- Active tooth decay
- Tooth sensitivity
- Chronic graft vs. host disease

Dry mouth can lead to tooth sensitivity and/or tooth decay. Daily fluoride (0.4% stannous or 1.1% sodium fluoride) can help your teeth resist tooth decay caused by dry mouth.



Tooth decay caused by dry mouth

How to Use Daily Fluoride

Compliance with the following fluoride regimen can greatly reduce the risk of tooth problems after cancer therapy.

- The best time to use fluoride is at bedtime.
- ▶ Remove partial dentures from the mouth.
- Brush your teeth thoroughly with a soft toothbrush and regular toothpaste. Floss teeth by sliding the floss up and down each side of each tooth. Patients with low white blood cell and platelet counts may be instructed not to use floss while counts are low. A super-soft toothbrush can usually be used without causing the gums to bleed. Note: It is very important to remove all food and plaque from between teeth before using fluoride. Food and plaque can prevent fluoride from reaching the surface of the tooth.
- ▶ Place a thin ribbon of prescription 1.1% sodium fluoride gel into the custom fluoride tray. If you do not have a fluoride tray, place the fluoride gel or paste onto your toothbrush and brush it into all surfaces of your teeth.
- Allow the fluoride to remain on the teeth for 5-10 minutes.
- After 5-10 minutes, remove the fluoride tray, if present. Thoroughly spit out all of the residual fluoride from your mouth. VERY IMPORTANT: Do not rinse mouth, drink, or eat for at least 30 minutes after fluoride use.
- Bone marrow transplant patients should begin fluoride use soon after being admitted for the transplant. Repeat daily for as long as you have natural teeth remaining!
- Custom fluoride trays may be created for patients before or after the bone marrow transplant. Patients with sensitive teeth, active decay or a history of radiation therapy to the head and neck area should have fluoride trays before the bone marrow transplant.



Mouth Care for Bone Marrow Transplant Patients

Patient information from the
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Dental Examination Before the Bone Marrow Transplant

Why: The purpose of a dental examination before the bone marrow transplant is to identify potential sources of oral infection that can lead to bacteremia (bacteria in the blood). It is important to prevent or eliminate dental infection before chemotherapy or other procedures that lower the ability of the body to fight infection. Severe gum disease, tooth decay, tooth abscesses, and poor oral hygiene can lead to pain and/or bacteremia before, during and after chemotherapy.

When: The dental evaluation should be performed as soon as possible after a diagnosis requiring chemotherapy. X-rays and a dental examination can usually be performed without causing any bleeding or trauma to your mouth. If the dentist finds a dental problem that requires attention, the medical oncologist needs to be consulted to coordinate any proposed dental care, including teeth cleaning, for a time when the blood counts are at an acceptable level. Usually, dental care can be safely performed about three to four days before induction of chemotherapy. Leukemia patients should be in remission before elective dental procedures are performed. If you are aware of a dental problem or have not had routine dental examinations, your medical oncologist should be informed as soon as possible.

where: A dental problem should be identified early so that it can be taken care of when blood counts are adequate. You may go to your regular dentist to have a check-up before or during chemotherapy providing the dentist consults your oncologist before any dental procedures are performed. Bitewings or panoramic x-rays and the dental examination are usually safe procedures when blood counts are low. If you do not have a family dentist, there may be an oral surgeon associated with the hospital or facility in which you are being treated. You may be referred by the oncologist for the prechemotherapy/pre-BMT dental evaluation.

Mouth Care During the Bone Marrow Transplant

It is extremely important to keep your mouth clean and healthy when you have a bone marrow transplant so that you reduce the risk of infection and bleeding. Some research has shown that mouth sores are less severe in persons with excellent oral hygiene. A professional dental cleaning 1-2 weeks prior to being admitted to the hospital for the bone marrow transplant is highly recommended, providing you get the approval from your oncologist. Here are some suggestions for reducing oral complications.

- Antiviral and antifungal medications may be prescribed by the medical oncologist to lower the risk of mouth infections.
- Use a super-soft toothbrush with gentle, circular motions. Brush to include all the surfaces of every tooth. Toothbrush bristles will become softer if held under warm water before use.
- Gently brush your tongue, palate, and gums with a super-soft tooth brush on a daily basis in order to remove harmful germs.
- ▶ Disinfect your toothbrush before each use while your white blood count is low. Soak your toothbrush in a fresh solution of bleach and water (1 tbs. bleach per ½ cup water) or wash it with an antimicrobial soap or mouth rinse containing chlorhexidine. Thoroughly rinse the toothbrush after disinfection and before placing it in your mouth. Change your toothbrush weekly.
- Flossing, the use of a medium or hard toothbrush, or an electric toothbrush are not recommended when the platelet count is lower than 50,000/mm3.
- You may use a water-irrigating device on a very low setting which can help eliminate food between teeth without causing bleeding.
- ▶ If toothpastes burn or irritate the mouth when using them, try a tooth paste that is specially made for children or people with dry mouth.
- If you have gum disease, you may be asked to rinse with a mouth rinse containing 0.12% chlorhexidine. It is best to use the mouth rinse 2-3 times daily, after meals and at bedtime.

- Saline or saltwater and baking soda rinses (1 tsp. salt and 1 tsp. baking soda in one quart of water) may be used throughout the day to sooth a sore and dry mouth.
- To increase effectiveness, stagger the use of mouth rinses (and fluoride) throughout the day. Allow at least one hour between rinses.
- Avoid mouth rinses containing alcohol.
- ▶ To ease the pain of mouth ulcers, you may be prescribed viscous lidocaine or a mouthwash containing this medicine (magic mouthwash) to use 15 minutes before eating. Eat small bites and chew thoroughly when using numbing medicines to reduce the risk of choking.
- Keep your mouth and lips well lubricated with a water-based lubricant. Petroleum jelly repels water and is not recommended.
- When your mouth is sore, remove dentures and leave them out until the mouth heals.
- ▶ All full and partial dentures should be disinfected before each use with a soap or rinse containing chlorhexidine or an antimicrobial denture cleanser. Dentures without metal may be soaked daily in a fresh solution of bleach and water (1 tbs. bleach in ½ cup of water). Rinse the dentures well before placing them back into your mouth. Always use a freshly prepared solution to clean your dentures.

Mouth Care and IV Bisphosphonates

Patients with Multiple Myeloma or metastatic bone cancer may have received IV bisphosphonates, e.g. Zoledronic acid (Zometa), as part of their treatment regimen. These drugs help to strengthen bones and have a predilection for the jaws. Please notify your dentist if you have taken these medications because of the possibility of oral complications relating to their use.

Please contact the Oral Medicine Clinic with any questions about your oral health.
(352) 273-6741