

## TREATMENT IN IRRADIATED AREAS PATIENT EDUCATION

For patients treated previously for cancer with radiation, there is a risk of developing osteonecrosis (bone cell death) of the jaw or other complications after dental treatment. The jaw bones usually heal completely, but in some patients who have undergone radiation therapy, the ability of the bone to heal may be altered and can interfere with the jaw's ability to heal normally. This risk is increased in procedures like tooth extraction, tissue surgery, implant placement or other invasive procedures that cause damage to the bone. Additionally, radiation brings about side effects such as decreased salivary flow, "radiation caries", and other problems not ordinarily seen with patients who have not received cancer treatment. Therefore, it is important to understand these risks before proceeding with any invasive procedure.

If the area of proposed treatment is within the area previously irradiated, it may be advisable or necessary to undergo hyperbaric oxygen therapy (HBO) before any invasive procedure. HBO is known to improve blood supply and oxygenation in bone and reduce the risk of post-operative complications – but it is not a guarantee. HBO is performed in a hospital outpatient clinic over several weeks.

After your dental procedure, long-term care with your medical doctor, dentist and/or oral and maxillofacial surgeon may be required to check your condition. Even if there are no immediate complications from the proposed dental treatment, the area is always subject to infection and breakdown at any time due to the unstable condition of the bone. Even the smallest trauma from a toothbrush, chewing hard food, or denture sores may set off a complication. Despite all precautions, including HBO pre-treatment, there may be delayed healing, osteonecrosis of the jaw (osteoradionecrosis), loss of bone and soft tissues, infection, jaw fracture, oral-cutaneous fistula (open draining wounds), or other significant complications. The risk of osteonecrosis can be increased by certain medical conditions including diabetes, immune suppression, cancer, as well as social habits like tobacco and alcohol use.

If osteonecrosis should occur, treatment may be long and difficult. Ongoing intensive therapy that could include hospitalization, further hyperbaric oxygen therapy, taking antibiotics for a long time, and removal of dead bone. Reconstructive surgery may be needed, including bone grafting, metal plates and screws, and/or skin flaps and grafts.

My signature below acknowledges I have read and understand the information provided to me and my questions have been answered.

---

Patient's (or Legal Guardian's) Signature

Date

---

Print Patient's (or Legal Guardian's) Name/Relationship

Date