First Bite Syndrome

First bite syndrome is a side effect of some surgical treatments for head and neck cancer that is thought to be caused by nerve damage. It can also be caused by a head and neck tumor itself. The syndrome causes pain in the mouth that is triggered by salivation or when taking the first few bites of food during a meal. The pain can be described as intense, sharp, or like a muscle spasm. The pain is usually felt in the parotid (salivary gland) region, which is in the back of the mouth close to the ears, and is usually only felt on one side. The pain lessens with each bite of food but will return if there is a break in eating. First bite syndrome can start anywhere from days, to months, to years after treatment. This side effect can resolve on its own, but there are some treatments that can be helpful for this side effect.

How is it treated?

There are a number of ways that first bite syndrome is treated, with varying degrees of benefit.

- Changes in behavior: Some actions, like rubbing the face, clenching the fists and stomping your feet can distract from pain. If the pain is only on one side of the mouth you can try chewing food on the opposite side. Patients may also adjust their diets to avoid acidic and sour foods, which can stimulate more saliva production, causing more pain.
- Medications: Research has shown that oral and topical pain medications, and non-steroidal anti-inflammatory medications, are not effective in treating first bite syndrome. Carbemazepine, an anticonvulsant, has been shown to reduce the intensity of the pain and amitriptyline, a tricyclic antidepressant, reduces duration of pain. Combinations of anticonvulsants and tricyclic antidepressants do not eliminate the pain, but lessen the severity and duration.
- Radiation Therapy: Radiation is not commonly used to treat first bite syndrome, but can be beneficial. There are risks associated with radiation that do not necessarily outweigh the benefits since first bite syndrome may resolve on its own.
- Botulinum Toxin Injection: Botulinum toxin (Botox) is a protein that blocks the release of acetylcholine. It can decrease pain in patients with first bite syndrome. The injection is given into the painful area in the parotid gland. The number of injections varies from 1-3. The injections themselves can be uncomfortable but this is the only treatment that has been found to fully resolve the symptoms in most cases. In rare cases, these injections can lead to facial nerve injury and xerostomia (dry mouth). Speak to your provider about how often these injections can be given.

First bite syndrome can greatly affect a person’s every day life. It is important to notify your provider if you think you may be suffering from first bite syndrome so that together you can decide on a treatment plan.