An impacted lower wisdom tooth (third molar) which has been causing repeated infection or pain will have been assessed for its closeness to the nerve inside your jaw bone. If the roots look close enough to be touching the nerve sometimes a special scan called cone beam CT is also taken to give a 3D picture and a better idea of the relationship between this nerve and the tooth roots.

This nerve gives feeling to the lip, and chin on the same side as your wisdom tooth. During the removal of the tooth the nerve can be bruised or damaged. In the event of this happening, the feeling, not the movement, to the lip or chin can be affected.

What is coronectomy?

Coronectomy is the removal of the visible part of a tooth (crown), leaving the roots behind, buried in your jaw. Because the roots are not removed, the risk of bruising the nerve is reduced. Not all patients and wisdom teeth are suitable for coronectomy. The surgeon will discuss this in detail with you.



Illustration of coronectomy procedure

What does the procedure involve?

The procedure involves making a small cut in the gum, and carefully separating the top of the tooth away from the roots with a drill. The remaining surface of the tooth roots is smoothed over and left in the jawbone and stitches are placed to completely close the gum back over.

The procedure takes the same amount of time as removing the whole wisdom tooth and can be done under the same type of anaesthesia.

What are the differences between this surgery and complete wisdom tooth removal?

The difference is that part of the tooth will be left behind and it will heal over. Tooth roots can be left in the jaw bone and rarely cause problems. The risk of sustaining permanent numbness to the skin and tongue is reduced.

If the remaining roots left behind do cause problems, for example infection or pain, then a second operation might be necessary to remove them. In these cases, the roots have often moved upwards and away from the nerve, reducing the risk of nerve injury during re-operation.

Risks

It is possible that the wisdom tooth roots will have to be removed at the time of surgery if they are mobile. The remaining roots might need removing in the future. Few studies suggest that on average less than 10% of coronectomies fail in this way and that about 7% of patients need further surgery.

After having a wisdom tooth removed or coronectomy, you may experience the following:

- Pain and swelling there is likely to be some discomfort or tenderness for a few days. There may also be some limitation in mouth opening
- Bleeding bleeding heavily is rare but there may be some light bleeding during the first 24 hours.
- Temporary bruising of the face and neck
- Nerve damage Two nerves lie in close proximity to impacted wisdom teeth. The lingual nerve provides sensation in your tongue whilst the inferior alveolar nerve (IAN) gives sensation to the lower lip and skin overlying the chin. There is a small risk that the IAN will be damaged following coronectomy, especially if the procedure cannot be carried out as planned and the tooth roots have to be removed as well.
 If either nerve is bruised, you may sustain numbness, or pins and needles in either

the tongue, lower lip, skin over the chin or any combination of these. The risk of having temporary or permanent damage to the nerves is uncommon but can be permanent and it is less frequent compared to full extractions.

- Infection or 'dry' socket
- Damage to adjacent teeth or dental restorations



Coronectomy

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> Maxillofacial unit Ciro Gilvetti / Helen McNeish Approved by the Patient Information Group Issue 2 – Ref 0004 Print August 2022 – Review August 2025

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