

## **Denosumab**

Denosumab belongs to a class of medications called “monoclonal antibodies”. Monoclonal antibody medications have been developed for a number of medical conditions. Like the bisphosphonate medications, denosumab targets the bone cells that are responsible for degradation and thinning of bone - the “osteoclasts”. Treatment with denosumab prevents bone loss and strengthens the bones. This medication is active in the skeleton for as long as it is taken, but the beneficial effects of the medication stop within a few months of the last dose.

### ***What is it called?***

Denosumab (Jubbonti® - biosimilar replacing Prolia®)

A biosimilar is a medication that has been shown to be the same as the original brand and may become available following the expiry of drug patents. Biosimilars improve access to a medication and reduce costs.

### ***What does it do?***

This medication strengthens the bones, prevents bone loss and reduces risk of fractures.

### ***How do I take it?***

This medication is given as a subcutaneous (under the skin) injection, every 6 months. These injections can usually be given by your primary healthcare provider or pharmacist.

### ***How long do I take it for?***

Denosumab appears to be safe and effective when taken for up to 10 years. However, the optimal length of treatment is not currently known. The effects of the medication reverse quite quickly after it is stopped, or even if a dose is missed by more than a month. In some cases, people who stop denosumab or miss a dose can experience spinal compression fractures. This means that it is very important to never stop this medication or delay your dose by more than one month without talking to your primary healthcare provider.

If treatment with denosumab is stopped or delayed, it is strongly recommended that your primary healthcare provider prescribe treatment with a longer-lasting medication (such as a bisphosphonate) to prevent excessive bone loss and spinal fractures.

### ***Who should not take this medication?***

People with low blood calcium levels should not take Denosumab.

***What side effects might I expect?***

Up to 10% of people may develop eczema, a skin condition with dryness, redness or itching. Because this medication has an effect on the cells of the immune system, it is possible that taking denosumab may increase a person's risk of infection. In clinical trials, people who took this medication had a slightly increased chance of developing a skin infection.

In rare cases, people who are treated with denosumab have developed jaw problems (also called 'osteonecrosis of the jaw') and fractures of the femur bone (also called 'atypical femoral fractures'). These problems are very rare, and the risk of having one of these problems is estimated to be less than 1 in 10,000 for 5 years of treatment. The risk may decrease after treatment is stopped. More information about atypical femoral fractures and osteonecrosis of the jaw is available **below**.

***What are the costs involved?***

Denosumab costs ~\$200 per injection (\$400 per year). This medication is covered by some drug plans. It is only covered by Alberta Seniors Blue Cross in special circumstances.