

# Xgel is suitable for all ages.

## Why use Xgel?

Our mouth is an ecological system. It is considered the most contaminated place on the human body with >700 species of bacteria. Most of these are 'good' but a few are 'bad' and these cause disease. A predominantly 'bad' one is *Streptococcus mutans* which is responsible for the plaque on our teeth. *Streptococcus mutans* is an evolutionary tragedy for us in that it can break down sugar (sucrose) for energy and the waste product is acid. This acid adjacent to tooth enamel causes the degradation of tooth tissue which, over time, results in cavitation (holes). It has been the dramatic increase in sugar consumption during man's recent history that *Strep. mutans* is 'out of control'.

## How can we restore the balance?

Xgel helps restore this 'balance' to our mouths. It interferes with the attachment of *Strep. mutans*; any plaque formed is easily removed by minimal agitation. Xgel can't be metabolized by these bacteria so no acid is produced for demineralization and the *Strep. mutans* bacteria die. We say Xgel is 'birth control for bad mouth bacteria'. We do not want a sterile mouth: we need the 'good' commensal bacteria to control the 'bad', opportunistic ones. Most anti-plaque agents in conventional toothpastes and mouthwashes kill all bacteria indiscriminately. For this reason, these are not recommended.

## Dental Benefits of Xgel.

Prevention of tooth decay and gum disease starts from birth by preventing the buildup of oral *Candida* and bacteria. Mom can also use Xgel when pregnant to reduce levels of these bacteria in her own mouth, as she is the source of these bacteria to her newborn child. Bacterial gingivitis and periodontitis is the response to toxins and endotoxins produced by the plaque biofilm. If left unchecked it can lead to chronic periodontitis which is associated with a host of health issues throughout our body. In fact everyone should be using Xgel as the reason and purpose for brushing our teeth is the same for all ages. Once inflammation is established subgingival microorganisms like the 'Red Group' of bacteria take over from the *Strep. mutans* and are responsible for the advancement of inflammation of the attachment tissue around our teeth. They are able to block our body's immune response and continue their destructive work with little interference. This can result in loose and loss of teeth and supporting bone. More importantly they gain direct access to our blood stream. This is why they have been long associated with increased inflammation in our body, stroke, myocardial infarction, atherosclerosis and hypertension. They are also implicated in impaired cognitive and memory loss, poor blood glucose control in those with diabetes mellitus due to the constant systemic inflammatory state, caused by the periodontal inflammation. The importance of oral care has now really been highlighted with a very convincing link with *Porphyromonas gingivalis* as being responsible for the Amyloid beta plaques in the brain, the sticky proteins commonly associated with Alzheimer's disease. Xgel acts as an anti inflammatory agent in THP-1-derived macrophages infected with live *P. gingivalis*, which supports its use in periodontitis. Xgel is suitable for all ages 'from the cradle to the grave'. Xgel is being very well received in retirement villages, especially in the frail care units where staff are not well trained in the oral care of the elderly. Added to this are the very difficult circumstances they have to work under, making effective removal of plaque very difficult to achieve. Xgel is the ideal solution! This bacterial biofilm provides an anchorage for pathogens like bronchial pneumonia which are then inhaled and cause respiratory infections. It is effective for control of *Candida* which is common in very young children and also a problem with dentures and prosthetics devices as well as any asthma ventilator users etc. Bacterial load (plaque) is common problem for young and old so again Xgel benefits all age users. The problem with conventional toothpastes is that they are too abrasive and have a numbing effect on the gums, which can result in too hard a brushing of the gingival area. This over time can have serious consequences as the gum attachments recede and expose the tooth neck dentine.

For the occasional removal of tea and other stains use a wet tooth brush dipped in a little bicarbonate of soda and gently brush the stained area. An Xgel sponge or a soft cloth with a little bicarb works even better. Dental tape or the sponge will help stain removal between the teeth.