Introduction

There is a range of mouthwashes available in supermarkets and pharmacies. Some mouthwashes are used for cosmetic purposes as breath fresheners, whereas others may have therapeutic value. In order to recommend the most suitable product, one needs to understand the purpose of the ingredients included in a mouthwash.

Background

Good oral hygiene and healthy habits, such as brushing and flossing, are usually sufficient to prevent superficial infections in the mouth and gums. It is believed that the use of mouthwashes may assist with the removal of food particles stuck between the teeth and may protect the oral cavity by physically removing harmful bacteria.

Periodontal or gum disease (around the tooth) is caused by plaque. Plaque is a sticky film formed by harmful bacteria in the mouth, which then adheres to the surfaces of the teeth and surrounding gums. If this film is not removed, it can eventually lead to the build-up of plaque, formation of caries, gingivitis (inflammation of the gums) and periodontitis. Periodontitis is a more serious form of gum disease and develops when the gum tissue separates from the tooth. This can lead to tooth loss. Other symptoms include red, swollen gums and persistent bad breath.

What’s in a mouthwash?

Mouthwashes may contain a combination of ingredients and it is important to identify and recommend the most suitable product for a specific patient. This article focuses on some of the ingredients frequently included in mouthwashes.

It is thought that fluoride may help prevent caries and tooth decay by remineralisation and strengthening of tooth enamel. Fluoride-containing mouthwashes may be recommended for individuals who are at high risk of developing dental caries, for example, patients with xerostomia (dry mouth), those who have fixed appliances such as braces, or patients with a frequent sugar intake.

Plaque-inhibiting mouthwashes act on bacteria in plaque, help to control the onset and development of gum disease and may help to reduce tooth decay (caries). Plaque-inhibiting mouthwashes may include a combination of ingredients, such as antimicrobials (ingredients that kill or prevent the growth of microbes), essential oils and ingredients that prevent bacteria from sticking to tooth surfaces. Using plaque-inhibiting mouthwashes alone may provide only limited benefit and they should therefore be used in conjunction with routine oral hygiene procedures such as brushing and flossing.

Antiseptics and disinfectants are used for the treatment of minor infections in the mouth or throat. Examples include cetylpyridinium chloride, triclosan, chlorhexidine or povidone–iodine.

An oral antiseptic such as chlorhexidine may also be used to manage severe halitosis (bad breath) and to prevent secondary infection during the treatment of oral ulceration and erosive mucosal conditions. Mouthwashes containing chlorhexidine or cetylpyridinium may cause temporary discoulouration or staining of the tooth surface. Antiseptic mouthwashes are typically prescribed for short-term use as an alternative or adjunct to regular oral hygiene procedures, such as after oral surgery when following normal oral hygiene measures is challenging.

Essential oils such as thymol and menthol are thought to have antibacterial or antiseptic properties. Menthol also has anaesthetic properties and a cooling effect. Essential oils are typically used as breath fresheners in mouthwashes.

Local anaesthetics such as lidocaine and benzocaine have a numbing effect and may provide a certain degree of symptomatic relief for minor oral discomforts.
Mouthwashes containing flurbiprofen, which has an anti-inflammatory effect, or benzydamine, which has anaesthetic, anti-inflammatory and pain-relieving properties, may be effective in reducing painful inflammatory conditions of the mouth and throat.

Alcohol used to be included in mouthwashes as a preservative, to kill bacteria, to act as a solvent and to improve stability. Alcohol-free mouthwashes are now available for people who wish to avoid or limit exposure to alcohol.

Hydrogen peroxide may be included in mouthwashes as a deodorant, an antiseptic agent and to help whiten teeth. However, long-term regular use of mouthwashes with a high hydrogen peroxide content is not recommended.

**Points to consider when using a mouthwash**

- Always use mouthwashes as directed by the manufacturer.
- The age of the patient should be considered before recommending a mouthwash, as children may not be able to use a mouthwash correctly or gargle without swallowing.
- It is recommended to wait at least five minutes after brushing the teeth before chlorhexidine-containing mouthwashes are used.

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- Fluoride-containing mouthwashes should preferably be used at different times from brushing; it should be used for one minute and then spat out.
- Patients should not rinse their mouth, eat or drink for at least 30 minutes after rinsing.

**Summary**

Using a mouthwash is meant to complement routine oral hygiene measures, not as a replacement. Good routine oral hygiene practices involve brushing the teeth twice a day using a toothbrush and a fluoride-containing toothpaste, supported with interdental cleaning such as flossing.

**Bibliography**