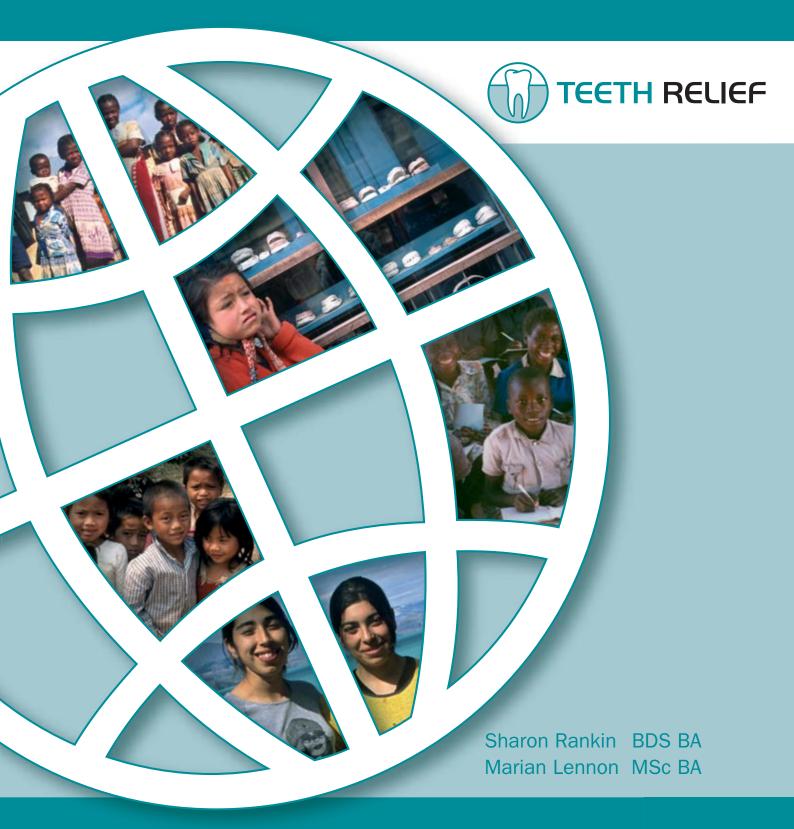
# ORAL HEALTH MANUAL



# **CONTENTS**

ACKNOWLEDGEMENTS 4	
INTRODUCTION 5 AIMS, OBJECTIVES & YOUR RESPONSIBILITY 6 RISK ASSESSMENT 8	
CHAPTER 1	ORAL ANATOMY 9 Anatomy of the jaw Function of teeth Development of teeth Types of teeth How teeth are formed
CHAPTER 2	<b>DENTAL DISEASE</b> 16 Periodontal disease Dental caries
CHAPTER 3	ORAL HEALTH PROMOTION 23  The oral health message Common risks and influences Oral health in the community Oral health habits & skills
CHAPTER 4	CROSS INFECTION CONTROL (CIC) 33 Basic rules of CIC Methods of sterilisation and disinfection Checklist for dental workers
CHAPTER 5	EXAMINATION AND DIAGNOSIS
CHAPTER 6	TREATMENTS AND PROCEDURES 57 Scaling teeth Injections in the mouth First Aid for fainting Extracting teeth Complications after extraction
CHAPTER 7	ORAL CONDITIONS 77 Teeth Gums Viral/fungal Mouth ulcers Patches, pre-cancers and oral cancers Trauma Other Risks
MEDICAL HISTORY REFERENCE 114 BIBLIOGRAPHY 116 SAMPLE RECORD CARD 117	

# CHAPTER 3:

# **ORAL HEALTH PROMOTION**

This section will outline the basics of Oral Health and includes:

- THE ORAL HEALTH MESSAGE
- COMMON RISKS AND INFLUENCES
- ORAL HEALTH IN THE COMMUNITY
- ORAL HEALTH HABITS & SKILLS

# THE ORAL HEALTH MESSAGE

Diet

&

Dirt

If you remember nothing else from this manual, remember these 2 words.

Diet and dirt are the two main causes of dental disease so Oral Health Promotion should be based around this message. No amount of money or resources will sustain improvement unless these two factors are continually addressed.

### WHAT IS ORAL HEALTH PROMOTION?

It is a strategy designed to improve the general health of a population by specifically improving their Oral Health. It aims to offer knowledge and skills to individuals, groups and communities so they can make informed choices about their well being.

#### **Oral Health Promotion has three functions:**

RAISE AWARENESS INCREASE KNOWLEDGE

**CHANGE ATTITUDES** 

How people eat and nourish themselves and their children will initially affect the quality of their teeth and gums – how they grow and how they are maintained. Oral Health matters even before teeth come into the mouth so Oral Health Promotion needs to be at the heart of Community Health programmes.

# Oral Health Promotion can make a real difference to communities because:

- it reinforces the holistic approach to 'well-being' and encourages people to take responsibility and do more than just avoid disease
- wherever there are people, there are mouths it is relevant across all sections of society
- positive action for Oral Health is positive action for general health an improvement in one area will also improve others
- it is a flexible, ongoing process that can be adapted as communities develop and change.

Oral Health Promotion is empowering and enables people to influence their own lives because it is done by people,

with people,
for people:
it is not done to them.

# THERE ARE TWO WAYS TO ANAESTHETISE AREAS OF THE MOUTH:

# **THE INFILTRATION METHOD –** applies anaesthetic to the nerve branch endings.

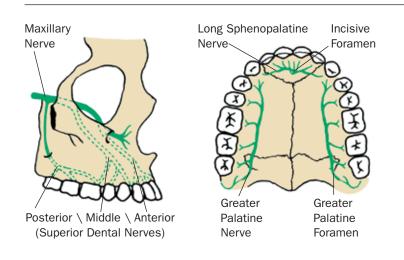
A local infiltration injection is given above the tooth or teeth to be treated.

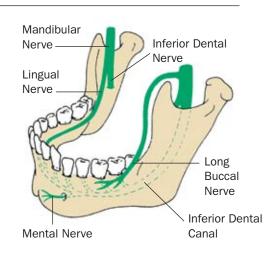
The needle is inserted into the soft tissue above the gum.

The solution soaks through pores in the bone and anaesthetises the nerve supply for those teeth at the site of the injection.

Branches of the **Trigeminal Nerve** supplying the **maxilla** (upper jaw)

Branches of the **Trigeminal Nerve** supplying the **mandible** (lower jaw)





# **THE NERVE BLOCK INJECTION –** applies anaesthetic to the trunk of the nerve.

A nerve block injection anaesthetises the nerve before it enters the jaw. It is used when several teeth in one quadrant need to be anaesthetised or when local infiltration cannot work.

The inferior dental nerve and the lingual nerve lie very close together at the back of the jaw. When the Nerve Block injection is given, it has the effect of anaesthetising all the lower teeth and the lingual gum on one side, together with half the tongue.

It also numbs the lower lip so once the patient confirms numbness here, you can be sure that all the lower teeth on that side are also numb. The gum on the buccal side of the lower jaw remains unaffected by the nerve block injection as it has a separate nerve supply so infiltration will also be required to numb this area.

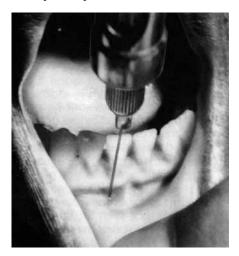
# Tongue

Syringe sites for lower front teeth

### THE INFILTRATION METHOD

For the Lower Front Teeth (canines and incisors)

The principle here is the same as for the upper teeth.



## **Buccal (outer)**

Hold the lower lip back with one hand so the sulcus can be clearly seen.

Push the point of the needle into the sulcus, next to the tooth to be extracted, to a depth of about 1 centimetre: the point should then lie against the outside of the lower jawbone and at the same level as the end of the root of the tooth.

**Dosage:** 1¼ ml (just over half a cartridge)



### Lingual (inner)

The procedure for this is the same. You may need to hold the tongue out of the way if it blocks your view.

The needle is usually inserted into the floor of the mouth next to the inside of the lower jawbone for only a short distance.

A small swelling will occur as the injection is given but this should quickly reduce.

**Dosage:** ¾ ml (just under half a cartridge)



All Upper Teeth +
Lower Canines & Incisors

Require

Infiltration Method

Lower Teeth:
Premolars & Molars

Require

**Infiltration Method** for the outside **Nerve Block Method** for the inside

# **MOUTH ULCERS**

# **RECURRENT APHTHOUS STOMATITIS**

Mouth ulcers are the common name for recurrent aphthous stomatitis. Mouth ulcers can take many forms. Any shallow breach of the skin or mucous membrane is called an ulcer. A minor aphthous ulcer is a small (less than 0.5cm), whitish, painful sore on a soft tissue area within the mouth. A major aphthous ulcer (larger than 0.5cm) is a more severe form.

#### WHAT TO LOOK FOR

- Mouth ulcers are usually round sores that appear on the inside cheeks, lips, tongue or gums
- They can be white, red, yellow or grey in colour and swollen
- There may be more than one mouth ulcer and they may spread or grow
- Mouth ulcers should not be confused with cold sores. Cold sores often begin with a tingling, itching or burning sensation around your mouth
- Most common ulcers heal within 10 days. If a generally painless ulcer has not healed after 3 weeks, this could be an early sign of cancer and the patient requires specialist referral.





Keep the area clean using a simple salt mouthwash or chlorhexidine to control infection and enable it to heal. No medicine will give complete relief so make sure the patient is aware of this.

In people infected with HIV, the ulcers take much longer to heal, especially in people taking a medicine used to weaken HIV e.g. AZT (zidovudine).

#### **RISKS**

**General Health/Immune System:** HIV/AIDS, stress, allergies,

hormones, viral infections, vitamin B12 or iron deficiency,

weakened immune system.

Behaviour: Diet - acidic or spicy food

**Physical impacts -** accidentally biting the tongue, hot food.



Minor ulcer



Minor ulcers from herpes infection



Small round ulcer on mucosa



Major aphthous ulcer on mucosa



Major aphthous ulcer at back of mouth

# **RISKS**

It is well proven that general health supports oral health and oral health is essential to general health. Many general disease conditions also have oral manifestations that increase the risk of further oral disease and then in turn, these become risk factors for a number of general health conditions.

Oral health shares many risk factors with general health. One risk factor can affect several chronic diseases and most diseases have several risk factors. Some risk factors can interact, which increases their effects.

# **BACKGROUND RISKS**

Background risks are factors that challenge people's health and wellbeing. There are many influences, although they can be considered at country, community and individual person levels.

#### **COUNTRY**

In low income countries there are many reasons for lack of treatment such as few resources, rural communities, and insufficient trained staff. Poverty leads to malnutrition, overcrowded living conditions, lack of sanitation and contaminated water, creating an environment for infectious diseases.

This is critical since general health affects oral health, and oral health affects general health. Globally, the main oral problem is dental caries and periodontal diseases, although there are other conditions, which can be prevented and controlled through action by individuals, communities, and professionals.

#### **COMMUNITY**

When working with a community it is important to ensure that you are aware of any national and regional health policies that are already in place. Are there any factors that you can influence regarding the promotion of good health, oral health and the prevention of disease? When you provide treatment it needs to be effective, appropriate, safe and sustainable.

For both prevention/promotion and treatment it is important to communicate and cooperate with healthcare teams, and integrate as much as possible with other groups such as schools, community leaders, local government, and the wider community.

Factors that may influence the provision of care include the availability of resources and services and the nature of the working environment e.g. rural/urban. It is important to understand any aspects of health and well-being that are particular to each community and it is vital to be sensitive to the living conditions that people find themselves in so you can give particular attention to those who are marginalised.

#### **PERSON**

The profile of each local population is significant because different oral conditions are more common in people with specific characteristics, such as age, gender, ethnicity/genetics. The young and the elderly tend to be high risk groups, although there are some oral conditions that affect middle-aged people.

Men and women can have different lifestyles that affect their oral health and these lifestyles can change over time. Some specific oral conditions tend to be associated with particular ethnicities and genetic backgrounds. For example, the inherited disease of sickle cell anaemia is seen in sub-Saharan Africa, and 70% of the world's children with the disease are born there. Similarly, some conditions can more commonly arise in certain groups: e.g. dislocated jaw in singers.

ACTION:

Collaborate and communicate with national and local communities and people to understand the environment in which you are working.

# GENERAL HEALTH/IMMUNE SYSTEM RISKS AND MEDICATION EFFECTS

Approximately half of all deaths worldwide each year are caused by communicable diseases (CDs). The main infectious diseases are HIV/AIDS, tuberculosis, and malaria. There are other communicable diseases that have distinctive oral signs and symptoms.

The four main non-communicable diseases (NCDs) globally are cardiovascular diseases (e.g. heart attacks and stroke), cancers, chronic respiratory diseases, and diabetes.

# COMMUNICABLE DISEASES – INTERACTIONS WITH ORAL HEALTH

In the case of communicable diseases, our main concern is their effects on the mouth.

#### **HIV/AIDS**

HIV stands for Human Immunodeficiency Virus which if untreated can lead to the disease AIDS (Acquired Immuno Deficiency Syndrome) and this attacks the body's immune system.

People with HIV are likely to have more problems inside the mouth, and therefore need more regular and careful help from dental workers. Infections in the mouth affect soft skin tissue and can also cause 'dry mouth' especially for those taking ARVs (antiretroviral drugs) and this also increases the chance of tooth decay and gum disease. Some of these oral conditions relating to HIV are referred to in the chapter.

#### **TUBERCULOSIS (TB)**

Tuberculosis is a bacterial infection and is one of the top ten causes of death worldwide. 95% of cases and deaths occur in low income