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**New Zealand  
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## Oral health guide for: Caregivers of older people



**Healthy  
Mouth  
=  
Healthy  
Ageing**



# Healthy Mouth = Healthy Ageing

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# Introduction

**New Zealand has an ageing population with more elderly people who are living longer. The 65+ group now make up one in seven of all New Zealanders, compared with one in twelve in the early 1970s.<sup>1</sup>**

While most of the this population of older people will enjoy good health, there is a growing proportion of older people aged 75 years and over, who are frail, dependent and in failing health. Many of these frail older people have their own teeth but may not be able to care for themselves. Increasing frailty, medical problems, reliance on medications, decreasing income and dependency on others for help may lead to rapid tooth decay, gum disease and loss of their teeth.

Much of this deterioration can be avoided with good oral health care such as regular and careful brushing with fluoridated toothpaste. This is why the role of the caregiver is so important in providing simple and consistent oral health care for frail and dependent older people. Simple actions can prevent much misery.

This guide provides an overview of topics that are of particular relevance to providing oral health care for older people. With a greater knowledge of these areas, caregivers will be able to provide excellent assistance for people in their care.





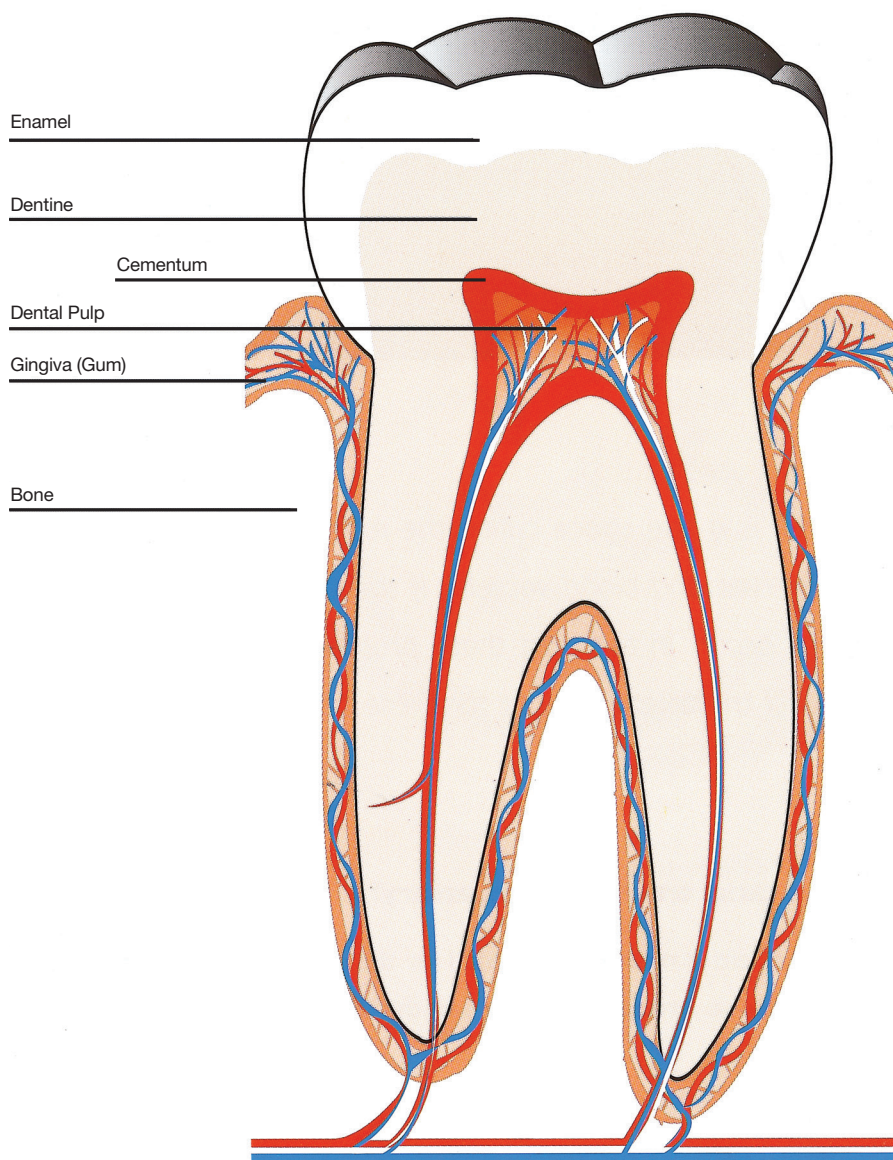
# **The healthy mouth**

# A healthy mouth



A healthy mouth is one that is free of pain and infection, with no untreated tooth decay, and with pink gum tissues that do not bleed on brushing. The mouth should be moist, with no evidence of lumps, ulcers or unusual colour on or under the tongue, cheeks or gums. Above is a healthy mouth of a 70-year-old with most of his teeth, many filled, some crowns and healthy gums.

# Structure of the tooth



The healthy tooth

There can be up to 32 teeth (16 in the upper jaw and 16 in the lower jaw) in a normal adult, but often there are fewer than 32 teeth. The part of the tooth that is usually visible above the gum is called the **crown** while the part that is below the gum and anchors to the jaw is called the **root**.

**Enamel** is the outer calcified tissue layer covering the crown of the tooth. It is the hardest substance in the human body.

**Dentine** is the inner tissue layer that lies beneath the enamel or cementum (see description below). It is softer than enamel but harder than cementum and bone. This is light yellow in colour when we are young but naturally darkens as we age – giving older people a “yellowed” colour to their teeth.

**Cementum** is the hard outer tissue layer covering the root and attaching the surrounding supporting tissue to the root of the tooth. Cementum acts to “glue” the tooth to the jaw.

**Dental Pulp** is the centre part of the tooth that consists of blood vessels and nerves that enter the tooth from a tiny hole at the bottom of the root. This nerve allows us to feel the temperature of food on the tooth and helps us know how hard we are biting together.

**Gum (Gingiva)** is the soft pink colour tissue covering the necks of the teeth and the jaw bones.

**Alveolar Bone** is the name given to the part of the jaw bone that surrounds the roots of each tooth.

**Healthy teeth enable chewing of food, support the cheeks and lips, contribute to speech and enhance appearance. Many teeth in older people are restored with white filling materials (especially front teeth) or metal fillings (back teeth). Filled teeth can be as healthy as normal teeth, and regular effective cleaning is very important to maintain them. Oral health care aims to maintain existing teeth and gums in a comfortable, useful state.**



# Protecting the oral health of older people

The World Health Organization suggests that populations should retain a minimum of 20 natural teeth for life.<sup>2</sup> This must be considered on an individual basis and an 'oral care plan' should balance the condition of existing teeth against the practicality of maintaining them. Retaining one's natural teeth contributes to maintaining an older person's quality of life for the following reasons:

- Eating—Ongoing ability to chew allows a person to enjoy the taste and texture of food, which encourages older people to eat well and get the nutrients they need for good health;
- Speech—Teeth help maintain clear speech;
- Appearance—Teeth are important for one's appearance, which helps maintain self-esteem;
- Health—The health of a person's mouth will impact on the overall health of the person (bacteria or infections in the mouth can lead to other health related issues); and
- Healthy jaw bones—Maintaining natural teeth help maintain strong jaw bones, which are necessary to support dentures, should they be needed.

Continuing good oral hygiene is the most certain method of maintaining healthy natural teeth.

**People's oral care needs change with age. An 'oral care plan' should be developed with a dental health professional. Daily oral hygiene should be based on this individual oral care plan.**

# Care of natural teeth

**This section explains different ways of cleaning for those who retain their natural teeth. Check the person's 'oral care plan' and select the appropriate methods for maintaining daily oral hygiene based on this plan.**

## Recommended care for maintaining healthy natural teeth:

- Brush morning and night with fluoride toothpaste
- Use a soft bristled toothbrush to clean teeth, gums and tongue
- Encourage the person who you are caring for to spit the toothpaste out and avoid rinsing after brushing, as this will wash the fluoride away from teeth (fluoride strengthens and repairs damage to the teeth, regardless of the person's age)
- If the care plan requires cleaning between teeth then consider using an inter-dental brush
- Encourage consumption of sugar-free food and drinks between meals
- Ensure regular professional checkups and cleaning

# Preparation

1. Wash and dry hands
2. If required, use clear safety glasses to protect your eyes from splashes
3. Put on an apron and disposable gloves to control cross infection
4. Assemble all supplies you need for cleaning—soft toothbrush, fluoride toothpaste, towel, interdental brush and mouthwash if necessary
5. Depending on the older person's mobility you can provide care in the bathroom while the person is seated in a chair, a wheel chair, or in bed
6. Partial dentures should be removed before cleaning natural teeth—See [care of denture wearers](#).

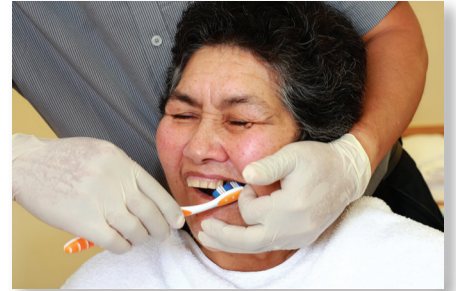


# Positioning

Place a towel around the person's shoulder to keep their clothes clean. Encourage the older person to clean his or her own teeth, if possible. Watch and help clean missed areas. If the person requires assistance try standing in different positions (as outlined below) to determine your best position to clean their teeth.

## ■ Brushing from behind the person

Seat the person in a chair and stand behind them to one side. Gently rest the person's head against the side of your body and place your arm along the side of their head. If an older person is in a wheel-chair you can brush his or her teeth by standing behind them and positioning their wheel-chair in front of a sink for convenience. If access to a sink is not possible you can simply use a bowl for the person to spit into.



## ■ Brushing from front or beside the person

If brushing from behind the person is not possible then try the following: Request the person to be seated in a chair. Stand in front of the person and support their chin with your index finger and thumb, taking care not to place pressure on their throat with your remaining fingers.



## ■ Brushing for those in bed

For those who are in bed, first raise the bed rails, if possible. Cover the person's shoulders with a towel to keep the bedding and clothes clean. Then use a finger or a bent toothbrush to carefully retract the cheek so you can see the teeth to be cleaned. Use another toothbrush to clean their teeth. You can use a bowl for the person to spit into. If the bed rails cannot be raised then use a wash cloth throughout the brushing procedure to mop the saliva and toothpaste foam away.



# Brushing technique

**When assisting others, it is important not to damage the resident's/patient's—teeth or gums while brushing. However, sometimes brushing will cause some bleeding from the gums especially if teeth haven't been cleaned for a while.**

If bleeding does occur continue with brushing as good oral hygiene is the best way to reduce the inflammation causing the bleeding. The best method to achieve good oral hygiene without damaging their teeth or gums is to place the toothbrush at a 45° degree angle to the gum line. Then brush gently by moving the brush back and forth in short, tooth-wide jiggling strokes.

Brush the front, back and chewing surfaces of the teeth. Use the “tip” of the brush for the inner front tooth surface. And, in the end complete by brushing the top surface of the tongue from back to front. After brushing, it is best if the person spits the toothpaste out and does not rinse as this will wash the fluoride away from teeth.

If possible, use an electric toothbrush to clean teeth and gums as it is simple to use. If using an electric toothbrush then simply hold the brush on all surfaces of the teeth and gums. Turn the brush on and off while it is in the mouth to avoid splattering of toothpaste.



Conventional brushing



Brushing with an electric toothbrush



# Oral hygiene aids

There are several aids and products that can be used to clean the teeth and gums. It is good to consult with a dentist before choosing aids for any special problems.

## ■ Toothbrush

There are many designs and types available in the market. Look at the size and length of the handle that best suits you and the person. The best brushes are ones with a smaller head and soft bristles. A toothbrush can be bent, front or back, to give better access to the mouth—this can be done using hot water to soften and bend the handle.

After brushing thoroughly rinse the brush under running water and shake out any excess water. Store the toothbrush uncovered in a dry place—never share a toothbrush. Replace the toothbrush every three months or soon after the bristles start to wear out.

For people with medical conditions that limit manual dexterity (such as arthritis or a stroke), or who are physically impaired an electric toothbrush may help them to manage brushing by themselves.

## ■ Inter-dental brushes

These brushes are like very small ‘bottle brushes’, and may be “Christmas tree”—like or cylindrical in shape, and are used to clean between the teeth where there are larger spaces, or for underneath bridges. The brush might be attached to a short or longer handle, and there are varying sizes of brush tip available. Apply by pushing the brush portion through the gap between teeth five or six times ensuring that the bristles touch the teeth surfaces so that food and plaque will be removed. Use of these cleaning aids should be specified in the ‘oral care plan’.

## ■ Toothpaste

The majority of toothpastes sold in New Zealand contain fluoride in some form. It is important to use fluoride toothpaste. The fluoride helps prevent tooth decay by binding with tooth enamel to repair the early stages of decay. For most people it is satisfactory to use a regular strength fluoridated toothpaste, which contains 1000ppm of fluoride. Sometimes a high strength fluoride toothpaste (5000ppm) is required, especially if someone is dependent and frail, as they need additional benefits from fluoride to maintain their teeth and gums—but this toothpaste should be specified in the ‘oral care plan’. Only a pea-sized amount of fluoride toothpaste should be used for brushing.

## ■ Mouthwashes

There are several different types of mouthwashes available in the market. They should be used as a supplement when suggested by a dentist. A mouth wash DOES NOT replace the need for brushing with fluoride toothpaste.



Tooth brushing



Inter-dental brushes



1000ppm and 5000ppm toothpaste

# Care of denture wearers

An older person can be wearing a 'complete denture' if they have no teeth or a 'partial denture' if only some teeth are missing. Complete dentures are usually made of plastic and partial dentures can be made of plastic or a mixture of plastic and metal. If dentures are not cleaned properly they can cause fungal and bacterial infections in the mouth, which can lead to:

- soreness or cracking at the corners of the mouth
- bad breath
- affect general health due to bacterial accumulation
- dentures not fitting properly due to the formation of tartar or hard deposits.

This section explains ways of maintaining oral hygiene for those who wear dentures. Check the person's 'oral care plan' and select the appropriate methods for maintaining daily oral hygiene based on this plan.

## Recommended care:

- Dentures should be removed from the mouth and rinsed after every meal
- While the dentures are out of the mouth, the person should rinse their mouth with water to remove any food debris
- Dentures must be cleaned completely twice daily, morning and night
- Allow the gum tissue to rest from wearing dentures. Take dentures out of the mouth overnight, clean and soak in a glass of water with a cleaner such as Steradent or Polident. It is particularly important that partial dentures are removed at night.

## Preparation

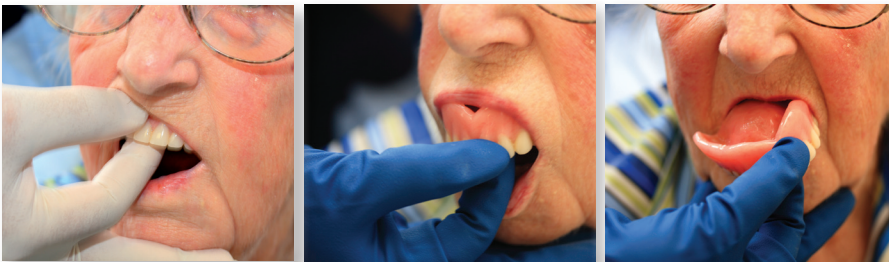
1. Wash and dry hands
2. If required, use clear safety glasses to protect your eyes from splashes
3. Put on apron and disposable gloves to control cross infection
4. Assemble all supplies you need for cleaning—denture brush, mild soap, denture cleaner such as Steradent or Polident, denture cup or storage container, and soft toothbrush and fluoride toothpaste for partial denture wearers.



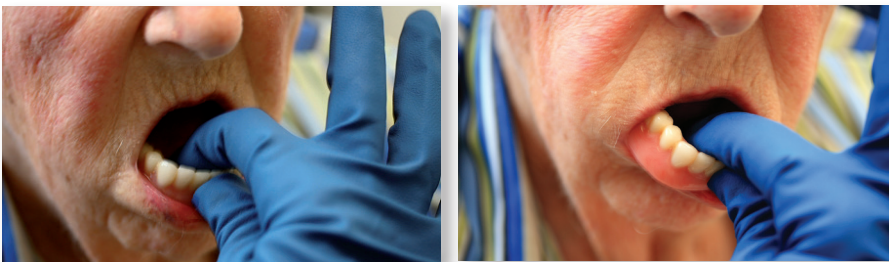
## Removing complete denture

Encourage the person in your care to remove their own dentures. If the person requires assistance then follow this method to remove the denture from their mouth.

■ **Upper denture:** with the thumb and index finger hold the front teeth of the upper denture and move it up and down until the vacuum is broken. Now remove the denture at a sideways angle and place it immediately into the denture cup.



■ **Lower denture:** gently press down on one side of the denture until it lifts slightly. Remove the denture carefully and place it immediately in the denture cup.



## Removing partial denture

Encourage the person in your care to remove their own dentures. If the person requires assistance then follow this simple method to remove the denture from their mouth.

■ **Upper denture:** using your finger tips, gently push down the clasps that cling onto the natural teeth. Once the denture is loose hold the plastic part of the denture and lift it out of the mouth.

■ **Lower denture:** using your finger tips, gently pull up the clasps that cling onto the natural teeth. Once the denture is loose hold the plastic part of the denture and lift it out of the mouth.

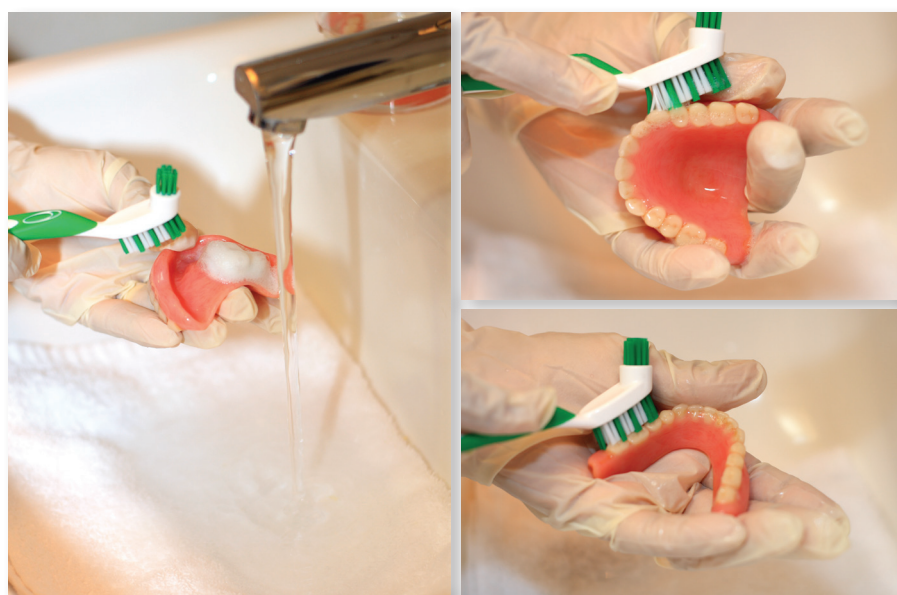




## Cleaning dentures

If possible, it is good to rinse the denture after every meal. A complete clean of the dentures twice daily, after breakfast and at night, is very important for a healthy mouth.

To clean dentures place paper towels or a clean wash cloth in the sink while cleaning, as this will help stop the dentures from breaking if dropped. Do not use normal toothpaste to clean dentures as this can scratch the denture. Use a soft toothbrush or denture brush and a mild soap to clean the dentures. Gently brush all teeth surfaces and both sides (fitting and outside) of the denture. While cleaning partial dentures it is important not to bend the metal clasps as this will affect the denture fit. If bent accidentally, adjustments should be made by a dentist. After brushing at night, place dentures overnight in a denture cup or glass of water with Steradent or Polident.



While using commercial denture cleaners like Steradent or Polident remember to follow the instructions on the packaging. Different products have different soaking times. For dentures with metal parts use products specifically made for them. Instructions for use of these cleaners should be specified in the 'oral care plan'.

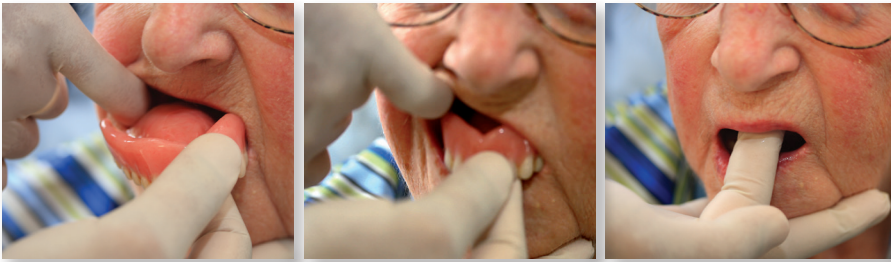


## Regular brushing for partial denture wearers

Partial dentures should be removed before cleaning remaining natural teeth. Use a soft toothbrush and fluoride toothpaste to brush remaining natural teeth, gums and tongue—See [care of natural teeth](#).



## Placing denture in the mouth



Dentures should always be rinsed well before they are placed back in the mouth. If the 'oral care plan' includes the use of a denture adhesive, usually in an upper denture, put small amounts on the inner surface according to the instructions on the product. Encourage the person to insert the denture on their own. If the person requires assistance then insert the upper denture first followed by the lower denture. Hold the denture sideways while inserting in the mouth and then rotate into position. Gently, push up the plastic part of the denture that covers the roof of the mouth to ensure proper fit of the upper denture. For partial dentures the metal clasps should be clicked into their position.

# Nutrition and snacking

A balanced diet with adequate nutrients is essential for oral health and in turn, oral health enhances nutritional well being. Nutrition deserves special attention for older people. A decline in food intake is common among older people.<sup>3</sup> A person's ability to chew food relies on the presence of effective teeth or dentures together with normal saliva flow.<sup>3</sup> Caregivers should understand that age-associated changes in digestive function, dentition, taste and smell, medical conditions and physical disabilities can all influence food intake.

For example, as highlighted in the Ministry of Health's Food and Nutrition Guidelines:<sup>3</sup>

- Older people with dry mouth are likely to prefer foods that are high in fats, oils and sugars due to ease of chewing or swallowing these types of foods.
- Older people with altered taste and smell may consume more sugars as a way of making food palatable which in turn can increase their risk of tooth decay (dental caries).
- Some older people may not consume some foods that are good sources of dietary fibre due to problems with their teeth or dentures.

The guidelines recommend eating a variety of nutritious foods from each of the four major food groups each day, for older people to stay healthy.

The four major food groups are:

- Vegetables and fruits;
- Breads and cereals, preferably wholegrain;
- Milk and milk products, preferably reduced or low-fat options; and
- Lean meat, poultry, seafood, eggs, nuts, seeds or legumes.



● **Refer Appendix 3 for the Ministry of Health's advice on servings and nutrients from these four food groups for healthy older people.**

### Nutrition tips for healthy teeth

- Encourage the person in your care to reduce the frequency and amount of sugar consumption from foods and drinks by
  - Choosing foods that are low in sugar
  - Avoiding snacking on sugary, sticky foods between meals
- For those with dry mouth, encourage frequent sipping of non-sugared, low acidic drinks such as water
- Advise the person to avoid frequent sipping of fruit juices, cordial or sugary drinks
- The intake of sugar-containing medications should be limited. Ask the doctor for alternatives for the person in your care.

### Nutrition tips for denture wearers

- Encourage denture wearers to use their knife and fork as their “teeth” to cut up food into smaller portions
- Prepare chopped up vegetables or mashed vegetables for them. Avoid giving them stringy foods
- Moisten difficult-to-chew foods with gravies and sauces, butter or margarine
- Provide small bite-sized portions of fruit.

## Regular dental visits

An individual's oral health care needs change with age and regular contact with a dentist is essential to maintain good oral health. It is important that regular professional dental care continues into old age.

Recommended care:

- Ensure that the older person has regular dental examination and treatments according to the ‘oral care plan’
- Frail and dependent older people may be able to be treated at their rest home, or the nearest hospital that provides oral health services (contact your local District Health Board for more information).



# Common oral health issues relating to older people

Oral diseases have a variety of signs and symptoms, and may involve any part of the mouth. Caregivers should check for changes from the normal whenever providing oral care. Reports of pain or discomfort should be followed up—usually by documentation and referral to a health professional.

**Caregivers should check regularly for changes from normal and any changes should be documented and referred to a health professional.**

# Dental caries/decay

Tooth decay is the process that results in the gradual destruction of a tooth and is caused by the combination of bacteria (dental plaque) and sugar (diet). Decay often occurs rapidly at the time of a life crisis such as serious illness or loss of a partner. In older people this process can be painless.

Decay may occur in the enamel cap, around and under fillings and (especially in older people) in the softer root dentine exposed as gums recede. This root decay may only be spotted by x-ray examination in its early stages, and is a serious problem for older people with natural teeth.



## ■ Common causes:

- Poor or lack of tooth brushing with fluoride toothpaste
- Lack of cleaning between teeth
- Snacking on foods high in sugar
- Frequent intake of sweetened drinks, including fruit juices and fizzy drinks
- Dry mouth

## ■ Warning signs:

- Tooth covered in food and debris
- Holes in teeth
- Broken teeth
- Brown or discoloured teeth
- Tooth sensitivity to hot or cold foods
- Difficulty with eating or chewing
- Toothache
- Bad breath
- Swelling in the face and jaw area

## ■ How to prevent:

- Brushing twice daily with fluoride toothpaste
- Regular cleaning between teeth if part of 'oral care plan'
- Reduction of sweetened foods and drinks, especially in between meals—and replacing with "tooth safe" alternatives such as water rather than juices or fizzy drinks
- Regular professional check-ups and cleaning

# Root caries/decay

As we age, our gums may recede due to the damage caused by hard brushing and gum disease. Receding gums, commonly known as ‘getting long in the tooth’ causes the exposure of the root surfaces of teeth. Root surfaces are softer and more porous than the tooth crown. They absorb stains readily and are not as resistant to decay as the rest of the tooth. When decay occurs the root becomes softened and darkly stained. In severe cases the affected teeth may break off at the gums.

## ■ Common causes:

- Incorrect brushing
- Gum disease

## ■ Warning signs:

- Receded gums
- Holes or dark discolouration near the gum line
- Tooth sensitivity
- Bad breath
- Difficulty eating

## ■ How to prevent:

- Use a soft-bristled toothbrush and avoid vigorous brushing
- Use a fluoride toothpaste
- Regular professional check-ups and cleaning



Root caries/decay



Tooth wear

# Sensitive teeth/tooth wear

Enamel is the outer surface of the tooth crown, and it protects the sensitive dentine underneath. Young and middle-aged people can complain of tooth sensitivity during brushing and while eating very hot or cold foods. This is usually due to some exposed dentine being stimulated. This is rare in older people because the nerves of teeth are protected by insulating tissues, which have formed in earlier years. There is therefore little value in using toothpastes designed for sensitive teeth for older people. If an older person has sensitive teeth it is usually because of decay, and so they should be seen by a dental professional.

Along with decay the other causes of loss of tooth structure in older people is “fair wear and tear”. This usually occurs in the form of pieces of tooth breaking away from fillings, and teeth chipping and becoming sharp to the tongue. These conditions should be referred to and managed by a dental professional as worn teeth that are functional and supported by healthy gums are superior in all respects to dentures.

Regular dental check-ups are important to spot and treat the causes of sensitive teeth such as decay, broken teeth or fillings.



# Gum disease

Gum disease, or periodontal disease, is an inflammatory disease caused by build up of bacteria (dental plaque) on the teeth. It affects the gums and other tissues that support the teeth.

## Gingivitis

Gingivitis is a mild form of gum disease, and it is often unnoticed as it is not painful. Gingivitis can be treated and reversed but if left untreated can develop into periodontitis (a destructive form of gum disease), which can lead to premature tooth loss.

### ■ Common causes:

- Inadequate or lack of tooth brushing
- Lack of cleaning between teeth

### ■ Warning signs:

- Red, swollen or tender gums
- Bleeding while brushing or flossing
- Bad breath

### ■ How to prevent:

- Brushing twice daily with fluoride toothpaste
- Regular cleaning between teeth if part of care plan
- Reduction of sweetened foods and drinks, especially in between meals—replace with “tooth safe” alternatives such as water rather than juices or fizzy drinks
- Regular professional check-ups and cleaning



## Periodontitis

Periodontitis is the destructive form of gum disease. Untreated gingivitis can advance to periodontitis as, with time, plaque can spread and grow below the gum line. Toxins produced by the plaque bacteria cause an inflammatory response which destroys the periodontal fibres and bone supporting the teeth. As the disease progress, more gum tissue and bone are destroyed. Eventually, the tooth becomes loose and falls out or may have to be removed.

### ■ Common causes:

- Inadequate or lack of tooth brushing
- Lack of cleaning between teeth
- Untreated gingivitis
- Smoking

### ■ Warning signs:

- Red, swollen or tender gums
- Receding gums, or gums that pull away from the teeth
- Loose teeth
- Pus between the gum and the tooth
- Bad breath

- Change in the way teeth fit together when biting
- Change in the fit of partial dentures

### ■ How to prevent:

- Brushing twice daily with fluoride toothpaste
- Regular cleaning between teeth if part of care plan
- Reduction of sweetened foods and drinks, especially in between meals—and replacing with “tooth safe” alternatives such as water rather than juices or fizzy drinks
- Regular professional check-ups and cleaning





# Dry mouth

Dry mouth or xerostomia is a condition where the mouth becomes very dry due to reduced saliva flow. It is caused by certain medical conditions and is also a side effect of medications such as antihistamines, painkillers, high blood pressure medications, diuretics, antidepressants and others.<sup>4</sup> People suffering from dry mouth are more susceptible to tooth decay, gum disease and bad breath.<sup>5</sup> The soft tissues in the mouth are more prone to irritation for those who wear dentures.

## ■ Common causes:

- Certain medications
- Radiation and chemotherapy
- Conditions such as Sjogren's syndrome, Parkinson's disease and Alzheimer's disease

## ■ Warning signs:

- Difficulty in swallowing and speaking
- Dryness in the mouth
- Burning sensation or sore feeling in the mouth
- Bad breath

## ■ How to prevent/manage:

- Follow strict daily oral hygiene routine using soft brush with fluoride toothpaste and cleaning between teeth (if this is part of 'oral care plan').
- Salt and Bicarbonate (baking soda) rinses can be used as often as required during the day to remove any mucus or debris from the mouth.

**To do this take a small, clean, dry air tight jar. Place equal amounts of salt and baking soda in the jar and mix the dry components together. Then dissolve half a teaspoon of this mixture in a glass of water and use this solution as a mouth wash. The person should spit the solution out after rinsing.**

- Discuss the medications with the doctor to find suitable alternatives (if that is possible) that are less likely to cause dry mouth
- Drink plenty of water to avoid dehydration
- Avoid drinking sweetened drinks, especially in between meals
- Special products are available in the market to restore moisture in the mouth. Use a product that is recommended in the 'oral care plan'.



# Oral ulcers

Oral ulcers are painful areas that appear inside the mouth. They are usually red or yellowish in colour. Ulcers can be caused by trauma due to biting the cheek or tongue, poorly fitting dentures, sharp broken teeth or dental fillings. These areas heal spontaneously or when the cause of the ulcer is removed.

## ■ Common causes:

- Sharp broken teeth
- Sharp broken fillings
- Broken or poorly fitting dentures

## ■ Less common causes:

- Viral Infections
- Cancer
- Side effects of some drugs
- Other general diseases

## ■ Warning signs:

- Red or yellow sore spots
- Difficulty eating

## ■ How to prevent/ manage:

- Use of topical analgesics like gels
- Replacement of old broken fillings
- Adjustment of poorly fitting dentures
- Use a salt and baking soda mouth rinse to keep the mouth clean
- Ulcers lasting for longer than two weeks need to be checked by a dentist



**If an ulcer does not heal within two weeks it is important to consult with a dentist.**

# Oral cancer

Oral cancer includes cancer of lip, tongue, cheeks and other sites in the mouth. Ulcers lasting for longer than two weeks must be screened for oral cancer. Usually oral cancer is identified by sores or lumps in the mouth that do not heal.

## ■ Common causes:

- Tobacco use
- High levels of alcohol consumption
- Infection with viruses such as HPV

## ■ Warning signs:

- An ulcer or sore spot in the mouth that does not heal within two weeks
- A white or red patch in the mouth
- Difficulty eating or swallowing
- Swelling of the jaws
- A lump in the throat
- Difficulty wearing dentures

## ■ How to prevent/ manage:

- Quit smoking
- Reduce the intake of alcohol
- Eat a healthy balanced nutritious diet
- Regular oral examination by a dentist



# Fungal and bacterial infections

## Oral thrush /Candidiasis

This is a fungal infection of the mouth. This is seen as patches of white film or small red dots that can be painful. It can also be a sign of Vitamin B12, folate or iron deficiency.

## ■ Common causes:

- A weak immune system which can be associated with the frail older people
- Leaving dentures in the mouth for a long time without adequate cleaning
- Dry mouth
- Taking antibiotics for a long time

## ■ Warning signs:

- White patches that cannot be wiped away
- Small red inflamed dots on the tongue
- Inflamed or redness of palate (roof of the mouth)

## ■ How to prevent/ manage

- Eating a well balanced nutritious diet, especially important in the frail older people
- Allow the gum tissue to rest from wearing dentures. Take dentures out of the mouth overnight, clean and soak in a glass of water with a cleaner such as Steradent or Polident
- Use of anti-fungal medications



## Denture Stomatitis

This is also a fungal or bacterial infection caused by leaving dentures in the mouth for too long.

### ■ Common causes:

- Leaving dentures in the mouth for a long time without adequate cleaning

### ■ Warning signs:

- Generalised redness usually seen in the area covered by a denture

### ■ How to prevent/ manage

- Use of anti-fungal or anti-bacterial medications
- Allow the gum tissue to rest from wearing dentures. Take dentures out of the mouth overnight, clean and soak in a glass of water with a cleaner such as Steradent or Polident



Denture Stomatitis



Angular Cheilitis

## Angular Cheilitis

This is a bacterial or fungal infection that usually appears as red inflamed sores and cracks at the corners of the mouth.

### ■ Common causes:

- Poorly fitting dentures
- Dentures not being cleaned properly
- Underlying immune or nutritional deficiency

### ■ Warning signs:

- Red sores and cracks at the corners of the mouth

### ■ How to prevent/ manage

- Use of anti-fungal or anti-bacterial medications
- Allow the gum tissue to rest from wearing dentures. Take dentures out of the mouth overnight, clean and soak in a glass of water with a cleaner such as Steradent or Polident
- Refer to a dentist

# Oral health and general health

A healthy mouth is an essential part of normal ageing. There is a growing body of evidence suggesting poor oral health may be a significant risk factor for having poor outcomes from conditions such as heart attack, stroke and diabetes.<sup>6</sup> Since many older people suffer from these conditions, it is important that the oral health of older people is maintained.

# Oral health and medications

Many medications can have side effects that can negatively influence a person's oral health, particularly older people. The commonest side effects of medications are: dry mouth, changes in the gums and soft tissues of the mouth (such as swollen gums), alterations in taste, and excessive bleeding after dental extractions.<sup>7</sup> Some medicines can contain sugar that can contribute to tooth decay.<sup>4</sup> You should be aware that the person under your care is likely to be taking several medications, some of which may have side effects on the mouth. It is therefore important to encourage and help them with effective oral hygiene and a good diet. Limiting sugary food and drink to meal times and avoiding sugary snacks between meals will help maintain good oral health for those taking medications.

# Oral health and infection

It is possible for bacteria that originate in the mouth (for example from decayed teeth) to get into the bloodstream and so to other parts of the body where they can cause serious infections. There are reports of people with poor oral hygiene experiencing infections in the heart or in artificial joints—when the bacteria from these infections are isolated, they have been found to be the same as those in decayed teeth and in gum disease.<sup>8</sup>

Further, there is strong evidence linking poor oral hygiene with older people getting aspiration pneumonia.<sup>9</sup> This is a life-threatening condition where bacteria and debris from the mouth enter the lungs to cause an infection. Good oral hygiene can significantly reduce the risk of aspiration pneumonia.

It is important to maintain good oral hygiene to protect the mouth and body against infection.

# Oral health and cardiovascular disease

People who suffer from periodontal disease share common risk factors with those who suffer from cardiovascular disease.<sup>10</sup> Cardiovascular disease can lead to health problems such as heart attacks and stroke. The list of common risk factors includes poor oral hygiene but other factors such as age, gender, lower socio-economic status, smoking and stress have also been identified.

When the bacteria in dental plaque travel into the bloodstream they can cause infection of tissues anywhere in the body including the cardiovascular network. Research has shown that these infections lead to inflammation of the blood vessels and there is a modest association between periodontal disease and atherosclerosis, heart attacks, and stroke. It is important to maintain good oral hygiene to protect the mouth and body against infection.



# Oral health and diabetes

Many people with diabetes are at increased risk of infection. This includes oral infections such as those related to common gum (periodontal) diseases like gingivitis and periodontitis where the bacteria can come from teeth and gums that are not kept clean. Older people who have diabetes need to follow strict oral hygiene as they are at increased risk of periodontal disease, which can upset their diabetic control. It is important to manage their blood glucose levels as high blood glucose level can make periodontal disease worse. High blood glucose is also associated with dry mouth and fungal infections such as thrush.

As a caregiver you should check the person's mouth regularly for warning signs such as bleeding gums, dryness, soreness, or white patches. Encourage and assist them with their daily oral hygiene, and if you spot any changes in their mouths, refer them to a dentist immediately.



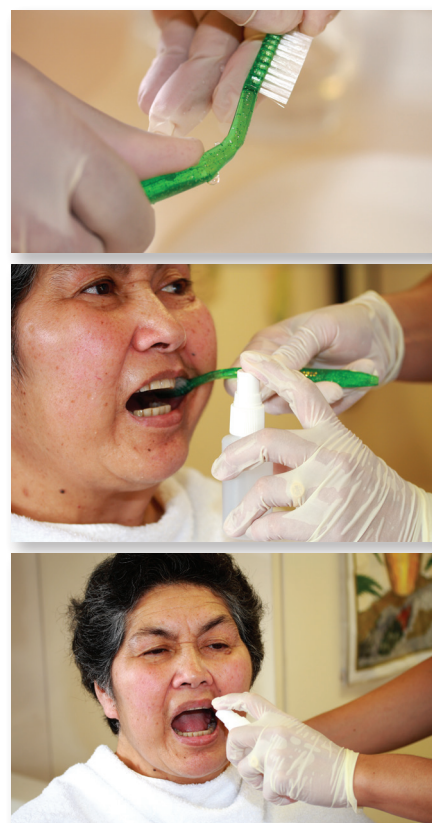
# Oral health care for older people with special needs

**A person is said to have special needs if they have a medical, physical or psychological/mental health problem that affects how they are cared for.**

Older people in residential care have varying abilities to look after themselves. Some people require no assistance with their activities of daily living while others require more help. Some conditions and disabilities have a significant impact on the oral health of older people. Stroke, poor mobility, reduced cognitive ability, dementia and physical disability are just some special needs that can affect the provision and performance of effective oral care. The majority of older people with special needs are dependent on caregivers to help them with oral hygiene activities such as tooth brushing. Caregivers should be aware of each person's specific needs. Dental professionals and families should be involved in developing oral health care plans for rest home residents. Oral health care plans should include daily oral care and regular monthly reviews of oral health needs by staff, with referral to a dental professional as required. The oral health care plan may also include behaviour management strategies, especially for those who are suffering from dementia. Managing and accommodating one's altered behaviour is vital to maintain good oral health.<sup>11</sup>

## Recommended care for older people with special needs:

- Brush twice daily, morning and night preferably with fluoride toothpaste containing at least 1000ppm. An extra-strength 5000ppm fluoride toothpaste can be used if recommended in the 'oral care plan'
- Use a soft toothbrush that can be bent for easy access to the older person's mouth
- Use mouth props and modified dental equipment to help with stabilising the jaw, to interrupt (or stop) chewing or biting reflexes, and to improve mouth access
- When it is difficult to brush with fluoride toothpaste an antimicrobial chlorhexidine mouth rinse can be sprayed as a short term solution but brushing should be started as soon as possible.
- For denture wearers follow regular procedure of cleaning dentures (as explained on page 14) and ensure removal of dentures at night
- Reduce intake and frequency of sugar consumption, especially between meals
- Ensure regular professional checkups and cleaning





## Effective communication and behaviour management techniques

Start by establishing a good relationship with the person under your care. The process may take time but it is necessary to make the person feel comfortable and ready to accept oral care.

- Before starting, explain what you are doing and show the products and aids you will use.
- If possible use a consistent approach by using the same staff, location, time and position.
- Speak in a clear, calm and friendly manner without demanding or raising your voice. Smile and look positive.
- Allow plenty of time to respond. Distract them with music or TV—familiar music may relax the person.
- If the person is able, consider breaking the task of tooth brushing down into manageable steps. This will enable you to find out where he or she needs the most help and will make tooth brushing more efficient and enjoyable.

## Task breakdown

Task breakdown means laying out all the materials required for tooth brushing in a logical order.<sup>12</sup> For example, toothbrush, toothpaste, cloth for wiping mouth, and bowl or basin for spitting into.

- Encourage the person to commence the tooth brushing process and watch as they put a small amount of tooth paste on the brush. You may have to help them with this. For some people, you may need to also help with taking the cap off the tooth paste tube.
- Watch as they brush their teeth. If needed, gently guide their hand to the mouth and then allow the person to continue brushing, helping when required so that they don't miss cleaning any teeth.
- Use the 'hand over hand' technique to brush their teeth if they do not initiate brushing.



## Bridging

“Bridging” is a technique that encourages a person to carry out a task by reminding them with visual, auditory and tactile cues, to perform an activity.<sup>12</sup> For example: you might say “let’s brush your teeth now,” and hand them a spare toothbrush.

- Let them hold the toothbrush and feel it with their fingers.
- The person may then realise what you want to help them with and allow you to carry out the tooth brushing.
- They may even want to brush their teeth themselves.



## Chaining

Sometimes the technique of “chaining” works. Chaining means that the person will carry on an activity if you start it off for them, thus creating a habitual chain reaction.<sup>12</sup>

- Let the person know it is time to clean their teeth and give them a toothbrush with a small amount of paste on it.
- If the person responds to the “chaining” cue they will place the toothbrush in their mouth and commence brushing.
- Sometimes this is all that is required. At other times they may need constant reminding or assistance so they don’t miss cleaning any of their teeth.



Bridging and chaining work well together and are a good way of gauging a person’s independence—so you know where they need the most help.

Sometimes you need to provide care for older people with behaviour and cooperation problems. They may start grabbing or pushing you away. You can distract them from what you are doing by placing a wash cloth, or soft object such as a sponge ball or small soft toy in the person’s hands for distraction. You may need another person to help you by distracting the person with small talk or by gently restraining the person’s hands.

Occasionally, someone will move their head and really resist by hitting and shouting. In this instance it is best to try cleaning their teeth at another time rather than risk injury to yourself or the person under your care.



# Oral health assessment and care plan for rest homes

A formal oral health assessment should be carried out at commencement of an older person's residence. This is useful, because it allows documentation of a person's oral health status with the recording of both normal and abnormal conditions—just like a regular doctor's health check. This process also allows you to formulate an appropriate oral care plan and will assist with the decision to make a referral, if required.

In order to ensure that each resident has a personalised care plan, it is necessary to evaluate and continuously monitor their oral health. Look carefully at the lips, inside the cheeks, gums, tongue, teeth and condition of the dentures, to check these are normal. Also check to make sure there is no food debris around the teeth, gums or on any dentures. If you see any changes in the condition of the mouth or the dentures, then you should arrange for an oral health professional to review your resident and provide any necessary care. This will ensure that any changes are detected and that professional advice and treatment is obtained in a timely way to ensure that the person's quality of life is optimised.

# Oral health assessment at commencement of residence

ORAL ASSESSMENT BY A REGISTERED NURSE OR OTHER APPROPRIATE PROFESSIONAL					
Resident _____			NHI _____		
Resident's current Dentist/Hygienist _____			Date _____		
Assessment completed by _____					
DENTAL STATUS					
Has no teeth	<input type="checkbox"/>	Wears upper denture	<input type="checkbox"/>	Is the denture named?	
Has some teeth (<10)	<input type="checkbox"/>	Wears upper and lower denture	<input type="checkbox"/>	Yes	<input type="checkbox"/>
Has most teeth (>10)	<input type="checkbox"/>	Wears partial denture(s)	<input type="checkbox"/>	No	<input type="checkbox"/>
ORAL COMFORT					
No pain from mouth	<input type="checkbox"/>	Occasional pain from mouth	<input type="checkbox"/>	Mouth often painful	<input type="checkbox"/>
Pain from dentures	<input type="checkbox"/>	Pain from gums	<input type="checkbox"/>	Pain from teeth	<input type="checkbox"/>
TEETH AND GUMS					
Teeth and gums look healthy	<input type="checkbox"/>	Gums are red, swollen or bleeding	<input type="checkbox"/>	Needs soft diet	<input type="checkbox"/>
Teeth appear to have decay (holes)	<input type="checkbox"/>	Gums appear to be receding	<input type="checkbox"/>	Does not eat well	<input type="checkbox"/>
TONGUE					
Clean	<input type="checkbox"/>	Coated	<input type="checkbox"/>	Dry	<input type="checkbox"/>
ORAL HYGIENE (look for FPT - food debris, plaque or tartar)					
Good (clean)	<input type="checkbox"/>	Adequate (FPT seen in one or two areas of the mouth or on small area of dentures)	<input type="checkbox"/>	Poor (FPT seen in most areas of the mouth or on dentures)	<input type="checkbox"/>
ORAL HYGIENE ABILITY					
Can brush independently	<input type="checkbox"/>	Needs some assistance	<input type="checkbox"/>	Needs full assistance	<input type="checkbox"/>
Denture soaked overnight?		If soaked, what is used?			
Yes	<input type="checkbox"/>	_____			
No	<input type="checkbox"/>	_____			
COMPLIANCE					
Fully compliant	<input type="checkbox"/>	Needs encouragement	<input type="checkbox"/>	Has behaviour issues	<input type="checkbox"/>
If behaviour issues, detail: _____					
_____					
ORAL HEALTH PROFESSIONAL					
Needs review/Tx by oral health professional (circle):      Yes      No					
Comment: _____					
_____					

● Refer to Appendix 1 for an enlargement of the above form

# Oral care plan based on oral assessment

ORAL CARE PLAN AGREED FOLLOWING ORAL ASSESSMENT AND CONSIDERATION OF OVERALL NEEDS	
Resident _____	Date _____
Resident's current Dentist/Hygienist _____	NHI _____
Oral care plan completed by _____	
<b>NATURAL TEETH</b>	
Brush teeth and gums _____ x daily with _____	
Additional oral care procedure(s) required (interdental brush, mouthwash, dry mouth product, high fluoride toothpaste, etc):	
1. _____	
2. _____	
3. _____	
4. _____	
Assistance required _____	
Additional comments _____	
<b>DENTURES</b>	
Clean daily around _____ am _____ pm	
Soak overnight in (product) _____	
Assistance required _____	
Additional comments _____	
Review oral condition and care plan again on _____	

• Refer to Appendix 2 for an enlargement of the above form

# Dental care in NZ

In New Zealand dental care for adults is provided by private dental practitioners with patients paying for their own expenses. Some people may be eligible for help from Work and Income New Zealand (WINZ), or there may be alternative sources of funding such as private health insurance or organisations such as the Returned Services Association that can be used to assist someone to obtain dental care. Some District Health Boards (DHBs) have oral health services and there may be some care that can be provided for older people. You should enquire at your local DHB Hospital about what services they have available before sending a referral.

● **Refer to Appendix 4 for a list of contacts of all the Hospital Oral Health Services in New Zealand.**

# References and Appendices



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# **ORAL ASSESSMENT BY A REGISTERED NURSE OR OTHER APPROPRIATE PROFESSIONAL**

Resident \_\_\_\_\_ NHI \_\_\_\_\_

Resident's current Dentist/Hygienist \_\_\_\_\_ Date \_\_\_\_\_

Assessment completed by \_\_\_\_\_

## **DENTAL STATUS**

Has no teeth	<input type="checkbox"/>	Wears upper denture	<input type="checkbox"/>	<b>Is the denture named?</b>	
Has some teeth (<10)	<input type="checkbox"/>	Wears upper and lower denture	<input type="checkbox"/>	Yes	<input type="checkbox"/>
Has most teeth (>10)	<input type="checkbox"/>	Wears partial denture(s)	<input type="checkbox"/>	No	<input type="checkbox"/>

## **ORAL COMFORT**

No pain from mouth	<input type="checkbox"/>	Occasional pain from mouth	<input type="checkbox"/>	Mouth often painful	<input type="checkbox"/>
Pain from dentures	<input type="checkbox"/>	Pain from gums	<input type="checkbox"/>	Pain from teeth	<input type="checkbox"/>

## **TEETH AND GUMS**

Teeth and gums look healthy	<input type="checkbox"/>	Gums are red, swollen or bleeding	<input type="checkbox"/>	Needs soft diet	<input type="checkbox"/>
Teeth appear to have decay (holes)	<input type="checkbox"/>	Gums appear to be receding	<input type="checkbox"/>	Does not eat well	<input type="checkbox"/>

## **TONGUE**

Clean	<input type="checkbox"/>	Coated	<input type="checkbox"/>	Dry	<input type="checkbox"/>
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## **ORAL HYGIENE (look for FPT - food debris, plaque or tartar)**

Good (clean)	<input type="checkbox"/>	Adequate (FPT seen in one or two areas of the mouth or on small area of dentures)	<input type="checkbox"/>	Poor (FPT seen in most areas of the mouth or on dentures)	<input type="checkbox"/>
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## **ORAL HYGIENE ABILITY**

Can brush independently	<input type="checkbox"/>	Needs some assistance	<input type="checkbox"/>	Needs full assistance	<input type="checkbox"/>
Denture soaked overnight?		If soaked, what is used?			
Yes	<input type="checkbox"/>	_____			
No	<input type="checkbox"/>	_____			

## **COMPLIANCE**

Fully compliant	<input type="checkbox"/>	Needs encouragement	<input type="checkbox"/>	Has behaviour issues	<input type="checkbox"/>
If behaviour issues, detail: _____					
_____					

## **ORAL HEALTH PROFESSIONAL**

Needs review/Tx by oral health professional (circle):      **Yes**    **No**

Comment: \_\_\_\_\_

\_\_\_\_\_



### ORAL CARE PLAN AGREED FOLLOWING ORAL ASSESSMENT AND CONSIDERATION OF OVERALL NEEDS

Resident \_\_\_\_\_ Date \_\_\_\_\_

Resident's current Dentist/Hygienist \_\_\_\_\_ NHI \_\_\_\_\_

Oral care plan completed by \_\_\_\_\_

#### NATURAL TEETH

Brush teeth and gums \_\_\_\_\_ x daily with \_\_\_\_\_

Additional oral care procedure(s) required (interdental brush, mouthwash, dry mouth product, high fluoride toothpaste, etc):

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_

Assistance required \_\_\_\_\_  
\_\_\_\_\_

Additional comments \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

#### DENTURES

Clean daily around \_\_\_\_\_am \_\_\_\_\_pm

Soak overnight in (product) \_\_\_\_\_

Assistance required \_\_\_\_\_

Additional comments \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Review oral condition and care plan again on \_\_\_\_\_



## The Four Food Groups: advice on servings and nutrients for healthy older people

FOOD GROUP	ADVICE	SERVING SIZE EXAMPLES	NUTRIENTS PROVIDED
Vegetables and fruit (includes fresh, frozen, canned and dried)	<p>Eat at least 5 servings per day: at least 3 servings of vegetables and at least 2 servings of fruit.</p> <p>If consumed, only 1 serving of juice or 1 serving of dried fruit counts towards the total number of servings for the day.*</p>	<p>Vegetables</p> <p>1 medium potato, kumara or similar-sized root vegetable such as yam or taro (135 g)</p> <p>½ cup cooked vegetable (e.g. puha, water cress, silverbeet, parengo, corn, broccoli) (50–80 g)</p> <p>½ cup salad or mixed vegetables (60 g)</p> <p>1 tomato (80 g)</p> <p>Fruit</p> <p>1 apple, pear, banana or orange (130 g)</p> <p>2 small apricots or plums (100 g)</p> <p>½ cup fresh fruit salad</p> <p>½ cup stewed fruit (fresh, frozen or canned) (135 g)</p> <p>1 cup fruit juice (250 ml)*</p> <p>2 tablespoons dried fruit*</p>	<p>Carbohydrates</p> <p>Dietary fibre</p> <p>Vitamins: especially folate, vitamin A (yellow and green vegetables), and vitamin C (dark green vegetables and most fruit, potatoes)</p> <p>Minerals: magnesium, potassium</p>
Breads and cereals (includes breakfast cereals, breads, grains, rice and pasta), preferably wholegrain	Eat at least 6 servings per day (choose wholegrain breads and cereals).	<p>1 bread roll (50 g)</p> <p>1 muffin (80 g)</p> <p>1 medium slice rewena</p> <p>1 medium slice bread (26 g)</p> <p>1 cup cornflakes</p> <p>½ cup muesli (55 g)</p> <p>½ cup cooked porridge (130 g)</p> <p>1 cup cooked pasta (150 g)</p> <p>1 cup cooked rice (150 g)</p> <p>1 cup cassava or tapioca (150 g)</p> <p>2 plain sweet biscuits (14 g)</p>	<p>Protein</p> <p>Carbohydrates</p> <p>Dietary fibre</p> <p>Vitamins: all B group (except B12), E (rich in wheat germ)</p> <p>Minerals (particularly in wholegrain breads and cereals): magnesium, calcium, iron, zinc and selenium</p>
Milk and milk products (includes milk, cheese, yoghurt and ice-cream) and alternatives	Eat at least 3 servings per day (choose low or reduced-fat options).	<p>1 large glass milk (250 ml)</p> <p>1 pottle yoghurt (150 g)</p> <p>2 slices cheese (40 g)</p> <p>2 scoops ice-cream (140 g)</p> <p>1 large glass calcium-fortified soy milk (250 ml)</p>	<p>Protein</p> <p>Fats: higher proportion of saturated than poly- or mono-unsaturated fats, especially in full-fat products</p> <p>Vitamins: riboflavin, B12, A, D</p> <p>Minerals: especially calcium, phosphorus, zinc and iodine</p>
Lean meat, poultry, seafood, eggs, nuts and seeds, and legumes	Eat at least 1 serving per day of meat, poultry or seafood, or at least 2 servings per day of nuts and seeds and legumes.	<p>2 slices cooked meat (approximately 100 g)</p> <p>¾ cup mince or casserole (195 g)</p> <p>1 egg (50 g)</p> <p>1 medium fillet of fish cooked (100 g)</p> <p>¾ cup cooked dried beans, peas or lentils (135 g)</p> <p>2 drumsticks or 1 chicken leg (110 g)</p> <p>½ cup nuts or seeds</p>	<p>Protein</p> <p>Fats: both visible and marbled in meat (mostly saturated fat, cholesterol); mostly unsaturated fats in seafood, nuts and seeds</p> <p>Carbohydrates: mainly legumes (dried peas and beans)</p> <p>Vitamins: B12, niacin, thiamin</p> <p>Minerals: iron, zinc, magnesium, copper, potassium, phosphorus and selenium</p> <p>Iodine: particularly in seafood and eggs</p>

Source: **Food and Nutrition Guidelines for Healthy Older People: A background paper.**

\* The Ministry of Health notes that not all of the foods within each group will contain all the nutrients shown above.



# Hospital oral health services

**The majority of dental care for older people can be provided by a private dental practitioner. However, some older people may not be able to receive care at the local dentist.**

If the private dentist in your area is unable to provide treatment, please enquire at your local DHB Hospital to see if oral health services for older people are available.

Northland	0800 MY TEETH / 0800 698 3384
Waitemata	09 623 6494 or 09 630 9943
Auckland	09 623 6494 or 09 630 9943
Counties Manukau	09 623 6494 or 09 630 9943
Waikato	07 834 3646 extn 7936
Bay of Plenty	06 752 0839
Lakes	07 349 7955 extn 7832
Tairāwhiti	06 867 9329
Taranaki	06 753 6139 extn 7207
Hawke's Bay	06 878 8109 extn 5763
Whanganui	06 348 3420
MidCentral	06 350 8640
Wairarapa	06 946 9857
Capital & Coast	04 918 6264
Hutt Valley	04 570 9281
Nelson / Marlborough	03 546 1286
West Coast	03 768 1308
Canterbury	03 364 0250
South Canterbury	03 684 1590
Southern	0800 570 300









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**David Crum ONZM**



CEO, NZDA



# Healthy Mouth = Healthy Ageing

Oral Health Guide: for  
caregivers of older people

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Dental Assoc.**

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**NZDA.org.nz**