information

ORAL HEALTH AND PARKINSON'S

Parkinson's is a progressive neurological condition, which is characterised by both motor (movement) and non-motor symptoms.

Understanding the Issues

Oral health significantly impacts overall health and wellbeing but can be easily overlooked when addressing the symptoms of Parkinson's. Evidence-informed guidelines for optimal oral and dental health specific to Parkinson's are limited.

Oral and dental health challenges commonly experienced in Parkinson's may include the following:

Oral Hygiene

Oral hygiene difficulties associated with fine hand movement control, oral and facial movement control, tremor, dyskinesia, sensation, motivation, posture, fatigue and concentration can all impact on the ability to carry out effective oral hygiene. Regardless of having dentures or natural teeth, thorough and regular cleaning to remove food & fluid residue and bacteria are critical for optimal oral health. Bacteria from the mouth can travel to other parts of the body such as the lungs.

Tooth Decay and Damage

Tooth decay and damage can result from a complex combination of factors, including poor oral hygiene, dry mouth, swallowing related difficulties, inadequate nutrition, irregular dental visits and reduced awareness of oral health needs. Plaque, a sticky film of bacteria and sugars coating the teeth, leads to erosion of teeth. Consultations with a dentist help to disrupt this damaging process, protect teeth and gums and provide education for self-care. Teeth-grinding, clenching of teeth and dyskinesia in the mouth and face can damage teeth.

Gum Disease

Gum disease or gingivitis is inflammation of the gums, which if left untreated, can lead to periodontitis, a gum infection that damages soft tissues and destroys bone that support teeth. Bacteria in gum pockets can enter the bloodstream and travel to other areas of the body, increasing risk of infection.

Sialorrhea

Sialorrhea refers to reduced control of saliva, which pools in the mouth and spills out past the lips. Saliva can be very watery or thick and ropey. Sialorrhea usually results from swallowing changes. Reduced lip closure, altered sensation in the mouth, poor coordination of swallowing movements and altered head and trunk posture can all contribute to the problem of sialorrhea. It can affect social confidence and hygiene. Saliva left accumulating in the mouth and throat can threaten to leak into the airway and increase risk of aspiration pneumonia. Speak to a Parkinson's nurse specialist, general practitioner or medical specialist about this problem and request referral to a speech pathologist.

Xerostomia

Xerostomia or dry mouth, results from reduced saliva production and flow. This is a common problem in Parkinson's. This can stem from 1) the Parkinson's condition itself, 2) be an adverse side effect of some medications, 3) mouth breathing due to reduced lip closure, 4) reduced swallowing frequency, 5) stress/anxiety and/or 6) inadequate fluid intake. Saliva has various important functions, helps wash particles from the mouth and reduces the harmful effect of acids produced by plaque bacteria. Dry mouth makes it more difficult to chew, swallow and enjoy food. It interferes with speech and can contribute to problems in swallowing medication, bad breath, burning mouth, tongue ulcers, cracked lips, gum disease, increased dental cavities and mouth infections.

Nutrition and Swallowing

Good nutrition and eating habits play a key role in maintaining good oral health. The development of 'sweet tooth' tendencies in some people with Parkinson's is documented

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but has limited evidence base and underlying explanation. Compulsive eating has been linked with potential side effects from specific medications and should therefore be reported to the Parkinson's nurse specialist or treating medical specialist, should adjustment of medications be required.

Chewing and swallowing difficulties can result from slow, small, poorly coordinated oral and facial movements, involuntary movements of the mouth and face, reduced sensation in the mouth and throat and damaged or missing teeth.

These factors can interfere with the chewing process, swallowing efficiency and safety, the clearing of food particles from the mouth and with maintaining adequate nutrition.

Halitosis

Halitosis or bad breath can result from dry mouth, inadequate cleaning between teeth, gum disease, inadequate fluid intake, activity of bacteria in the mouth and throat, post nasal discharge and a range of medical issues. A dentist can assess and make recommendations according to the specific cause.

Pain and Burning of the Mouth

Oral pain without observable cause can present as a non-motor 'off' symptom for which the medical specialist may suggest a medication adjustment. Burning mouth (involving tongue, cheeks and palate) without an overt cause is rare but more common in people with Parkinson's than in the general population. There is some empirical evidence that this problem can be medication-related or can result from dry mouth. Dopamine has been documented to be both potential 'cause and cure'. The role of psychological factors such as stress, anxiety and depression in burning mouth also remains unclear.

Practical Tips to Maintain Optimal Oral Health

Dental Visits:

- Short and frequent dental reviews are recommended
- Consider taking a companion
- Time the appointments to coincide with 'on' times or optimal movement control

As the dentist may not be aware of the challenges associated with Parkinson's it may be necessary to mention:

- Specific teeth cleaning problems experienced
- Hypotension (blood pressure drop). Slow dental chair adjustment may help
- That reducing stress during the visit may assist movement control
- That due to slowness of movement, following instructions may take longer
- Swallowing problems (suctioning and water flow adjustments may assist with treatment procedure)
- Posture and seating requirements may require adjustments
- Involuntary movements of the mouth and face
- Possible need for fast setting materials to be used during dental treatment

If possible medication side-effects are a concern or are causing oral health problems this should be discussed with the medical specialist.

- Some medications, for example, anti-cholinergic drugs for conditions such as depression, anxiety, bladder control and tremor, can cause dry mouth
- If significant tremor or dyskinesia (involuntary writhing movements) are experienced speak with the medical specialist as medication adjustment may be of benefit.

Dry Mouth

- Chew naturally sweetened gum if chewing and swallowing abilities permit, this encourages lip closure, secretion of saliva and more frequent swallowing
- Try products for dry mouth, available in the form of gel or spray
- Be mindful of drinking adequate fluids
- Try a humidifier, nebulised saline or steam vapour inhaler
- Practice consciously maintaining lip closure whilst breathing

Saliva Control

 Ask for a speech pathologist referral if difficulty controlling saliva is experienced. Whether excessive saliva or dry mouth is experienced strategies to improve saliva control can be taught



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- Saliva control difficulties are predominantly due to swallowing changes
- For persistent excess saliva the medical specialist may recommend a trial of Botulinum Toxin injection into the salivary glands or cautious use of atropine drops under the tongue or diluted in water
- For thick saliva, try nebulised saline, chew naturally sweetened gum and ensure that adequate fluids are taken

Swallowing

It is very common for people with Parkinson's to experience swallowing difficulties.

• Request referral to a speech pathologist

This can provide: a comprehensive swallowing assessment, training of conscious attention strategies to improve chewing and swallowing management and safety, advice on food textures and fluid consistency and techniques for swallowing medication effectively and safely. (See information - Swallowing and Parkinson's)

Oral Care Routine

- Request written recommendations for a personalised oral care routine from the dentist
- Adhere to recommended regular oral care schedules and allow extra time to be thorough
- If a carer/partner is available consider allowing him or her to help with oral hygiene routines if needed
- Ensure removal of food particles trapped in mouth, particularly between the teeth
- Multi-disciplinary team support can also assist in addressing the obstacles to optimal oral hygiene care. In addition to the dentist, occupational therapists, speech pathologists, Parkinson's nurse specialists can help with strategies to make oral care routine easier

Mouthwash, Toothpaste and more

- Consider using fluoridated toothpaste
- Drink tap water rather than bottled water as the fluoride will help protect against tooth decay (providing there are no swallowing changes)
- Mouthwash should ideally be Chlorhexidine-based and without alcohol. If a swallowing problem has been identified consult with a speech pathologist about the safe use of mouthwash

- Using Jumbo Swabs with excess liquid squeezed out may be a suitable option
- Use an electric toothbrush with a large handle
- Ask the dentist about using interdental brushes called 'piksters'
- Floss regularly

Maintaining Dentures

- It is very common for people with Parkinson's to have poorly-fitting dentures. Pooling of saliva, dry mouth, weight loss or involuntary mouth movements can interfere with a firm and stable fit
- A good fit is important for chewing, swallowing, speaking and comfort. Consult a dental prosthetist, dentist or speech pathologist
- Ask the dentist or pharmacist about suitable denture adhesive products
- Ensure dentures are cleaned each day with a denture brush and mild liquid soap. Rinse them well with water, removing food residue, plaque and any adhesive
- Remove dentures overnight and soak them in fresh cold water. This also rests the gums.

Nutrition

- A dietician can assess nutritional status and advise on how to best meet dietary needs
- Calcium, Casein and Phosphorus are considered teeth strengthening materials, helping to repair teeth after acid attacks
- Fresh fruit, vegetable sticks, yoghurt and cheese make teeth friendly snacks
- Limit intake of sugary and/or acidy drinks such as fruit juices, energy drinks, cordials, soft drinks or "vitamin waters"
- Naturally sweetened Xylitol gum, available via pharmacies or online, has anti-bacterial properties. It encourages frequent swallowing, promotes saliva production and can help remove particles from the teeth and gum line

