

Diabetes and Oral Health



Mission Statement

**Together with the Halton
Community, the Health
Department works to
achieve the best possible
health for all**

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Note

All patient care plans must be approved by the resident's/patient's appropriate health care provider

Diabetes in Ontario

- Around **1 million** Ontarians currently diagnosed with Diabetes in 2012
- This is **20% more than in 2008!**
- Over age 75, prevalence between 15-20% in Canada and “In most long term care facilities, people with diabetes make up at least a quarter of the resident population” (*Clement and Leung, 2009*)
- Increased prevalence may be due to more newly diagnosed cases and/or persons with diabetes living longer (*Hux and Tang, 2003*)

Assessment of Oral Health in Diabetics

ORAL HEALTH ASSESSMENT TOOL (OHAT) for LONG-TERM CARE Resident: _____
 Nursing Admission Quarterly 1 2 3 Date: _____

NOTE: A Star * and underline indicates referral to an oral health professional (i.e. dentist, dental hygienist, denturist) is required.

Category	0 = healthy	1 = changes	2 = unhealthy	Score	Action Required	Action Completed
Lips	Smooth, pink, moist	Dry, chapped, or red at corners	<u>Swelling or lump, white/red/ulcerated patch; bleeding/ ulcerated at corners*</u>		1=intervention 2=refer	<input type="checkbox"/> YES <input type="checkbox"/> NO
Tongue	Normal, moist, pink	Patchy, fissured, red, coated	<u>Patch that is red and/or white, ulcerated, swollen*</u>		1=intervention 2=refer	<input type="checkbox"/> YES <input type="checkbox"/> NO
Gums and Tissues	Pink, moist, Smooth, no bleeding	<u>Dry, shiny, rough, red, swollen around 1 to 6 teeth, one ulcer or sore spot under denture*</u>	<u>Swollen, bleeding around 7 teeth or more, loose teeth, ulcers and/or white patches, generalized redness and/or tenderness*</u>		1 or 2 = refer	<input type="checkbox"/> YES <input type="checkbox"/> NO
Saliva	Moist tissues, watery and free flowing saliva	Dry, sticky tissues, little saliva present, resident thinks they have dry mouth	<u>Tissues parched and red, very little or no saliva present, saliva is thick, ropey, resident complains of dry mouth*</u>		1=intervention 2=refer	<input type="checkbox"/> YES <input type="checkbox"/> NO
Natural Teeth <input type="checkbox"/> Y <input type="checkbox"/> N	No decayed or broken teeth/ roots	<u>1 to 3 decayed or broken teeth/roots*</u>	<u>4 or more decayed or broken teeth/ roots, or very worn down teeth, or less than 4 teeth with no denture*</u>		1 or 2 = refer	<input type="checkbox"/> YES <input type="checkbox"/> NO
Denture(s) <input type="checkbox"/> Y <input type="checkbox"/> N	No broken areas/teeth, dentures worn regularly and name is on	1 broken area/tooth, or dentures only worn for 1 to 2 hours daily, or no name on denture(s)	<u>More than 1 broken area/tooth, denture missing or not worn due to poor fit, or worn only with denture adhesive*</u>		1 = ID denture 2 = refer	<input type="checkbox"/> YES <input type="checkbox"/> NO
Oral Cleanliness	Clean and no food particles or tartar on teeth or dentures	Food particles/ tartar/ debris in 1 or 2 areas of the mouth or on small area of dentures; occasional bad breath	<u>Food particles, tartar, debris in most areas of the mouth or on most areas of denture(s), or severe halitosis (bad breath)*</u>		1=intervention 2=refer	<input type="checkbox"/> YES <input type="checkbox"/> NO
Dental Pain	No behavioural, verbal or physical signs of pain	<u>Verbal and/or behavioural signs of pain such as pulling of face, chewing lips, not eating, aggression*</u>	<u>Physical signs such as swelling of cheek or gum, broken teeth, ulcers, 'gum boil', as well as verbal and or behavioural signs*</u>		1 or 2 = refer	<input type="checkbox"/> YES <input type="checkbox"/> NO

FOLLOW UP
 Oral Hygiene Care Plan - Date: _____ Oral Health Assessment to be repeated on - Date: _____
 Person and/or family/guardian refuses: a) Referral - Date: _____ b) Dental Treatment - Date: _____

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- Very important for all LTC residents but especially important for diabetics
- Initial assessment provides a baseline for continuous care
- Assessments can identify unhealthy oral conditions and need for referral to oral health professional
- Assessment is key in creation of an Oral Care Plan

Common Oral Conditions seen in Diabetics



- Periodontitis (gum disease)
- Dry mouth (xerostomia)
- Infections, mouth sores and ulcers
- Oral Candidiasis (thrush - yeast infections)

Periodontal or Gum Disease

What is it?

- Poor oral hygiene
- Redness
- Swelling
- Bleeding
- Gum recession
- Chronic bad breath
- Presence of pus
- Destruction on bone
- Eventual tooth loss



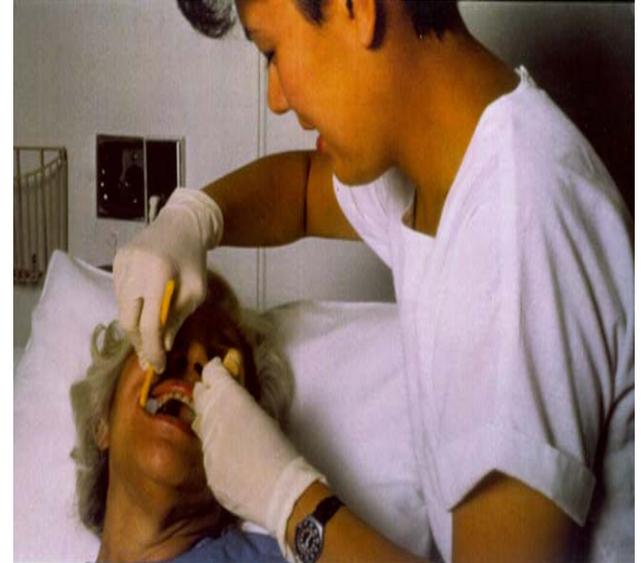
The Link Between Periodontitis and Diabetes



- Growing body of research suggests a “bi-directional relationship” between periodontal disease and diabetes
- Diabetics have slower healing response and therefore are more susceptible to periodontitis than non-diabetics
- Periodontitis increases the inflammatory response in the body thereby making blood sugar more difficult to control

A Two Way Street

- Diabetics are 3 to 4 X more likely to develop periodontal disease
- “Periodontitis is more severe and rapidly progressive in people with diabetes compared to people without diabetes” (*Iacopino & Tenenbaum, 2009*)
- Oral inflammatory disease affects up to 75% of the diabetic population (*Iacopino & Tenenbaum, 2009*)



The Good News: studies are showing that when oral health is improved, diabetic control also improves!

The Link between Diabetes and Dry Mouth



- Dry mouth (Xerostomia) occurs because the salivary glands of a diabetic slowly degenerate over time until they can no longer produce enough saliva to maintain the healthy balance needed for optimum oral health.
- Lack of saliva to wash away harmful bacteria can lead to an increased risk of root surface cavities in older adults and periodontal disease

The Link between Diabetes and Increased Oral Infections

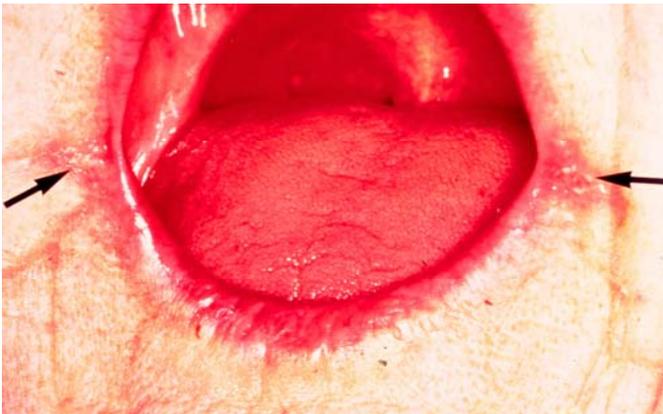


- Diabetics have slow or impaired wound healing so they are at greater risk for developing infections including sores and ulcers in the mouth and therefore require consistent and proper oral care to remove harmful bacteria and reduce the risk.

The Link between Diabetes and Oral Candidiasis



- Oral candidiasis includes symptoms of tenderness, white patches in mouth, redness and cracking at sides of lips and tenderness affecting ability to eat
- Diabetes allows candida yeast to flourish and with an impaired immune system it decreases the bodies ability to fight off infections
- High blood sugars make the mucous membranes more sugary, which is a perfect environment for yeast to grow.



Oral Care Plan for Diabetics

- Once the initial assessment has been completed a care plan is the next important step for everyday care
- The care plan provides a roadmap to a healthy mouth
- Place the care plan in the resident's bathroom where it can be easily viewed by the resident and the caregiver and refer to it often

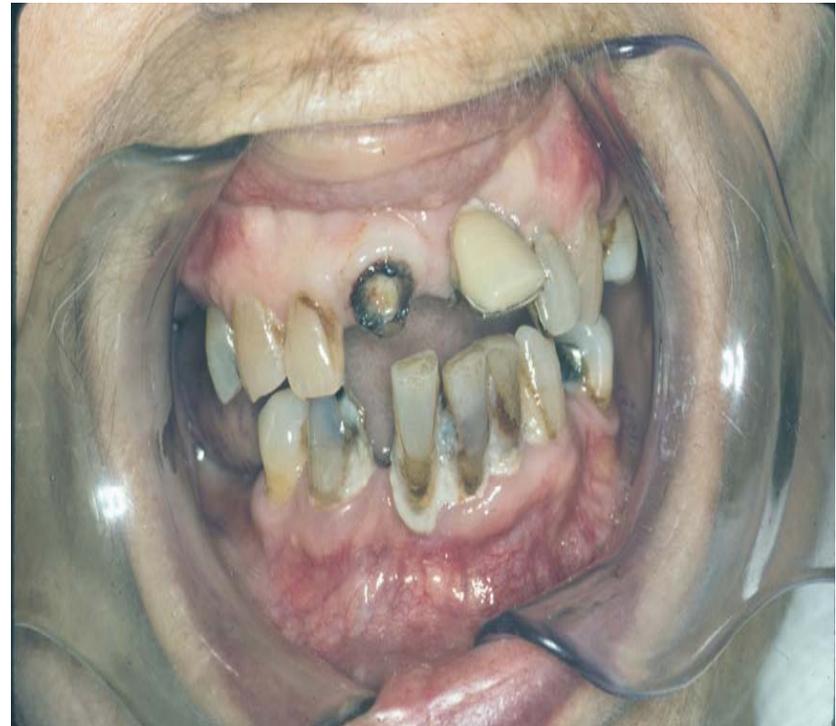
ORAL HYGIENE CARE PLAN for LONG-TERM CARE						Resident:
Level of Assistance Required <input type="checkbox"/> Independent <input type="checkbox"/> Some assistance <input type="checkbox"/> Fully dependent						Date:
Assessment of Natural Teeth & Tissues: <i>(please circle)</i>	Upper	Yes	No	Root tips present		Interventions for oral hygiene care: <i>(check all that apply and indicate frequency as needed)</i>
	Lower	Yes	No	Root tips present		
	General	Indicate any other findings on chart below: 				
Assessment of Dentures: <i>(please circle)</i>	Upper	Full	Partial	Not worn	No denture	<input type="checkbox"/> Regular large handled toothbrush <input type="checkbox"/> a.m. <input type="checkbox"/> p.m. <input type="checkbox"/> Use 2 toothbrush technique <input type="checkbox"/> a.m. <input type="checkbox"/> p.m. <input type="checkbox"/> Suction toothbrush <input type="checkbox"/> a.m. <input type="checkbox"/> p.m. <input type="checkbox"/> Regular fluoridated toothpaste <input type="checkbox"/> a.m. <input type="checkbox"/> p.m. <input type="checkbox"/> Do not use toothpaste <input type="checkbox"/> Interproximal brush/ floss/ end tuft <input type="checkbox"/> a.m. <input type="checkbox"/> p.m. <input type="checkbox"/> Dry mouth products _____ <input type="checkbox"/> Other:
	Lower	Full	Partial	Not worn	No denture	
Regular Barriers to Oral Care or Dental Treatment <i>(check all that apply)</i>	<input type="checkbox"/> Forgets to do oral hygiene care <input type="checkbox"/> Can't remember how to do oral care <input type="checkbox"/> Refuses oral hygiene care <input type="checkbox"/> Won't open mouth <input type="checkbox"/> Bites toothbrush <input type="checkbox"/> Can't or doesn't follow directions <input type="checkbox"/> Can't swallow properly (dysphagia) <input type="checkbox"/> Can't rinse or spit <input type="checkbox"/> Swallows all toothpastes or liquids			<input type="checkbox"/> Responsive behaviours: <input type="checkbox"/> Pushes away <input type="checkbox"/> Hits <input type="checkbox"/> Turns head away <input type="checkbox"/> Bites <input type="checkbox"/> Spits <input type="checkbox"/> Swears <input type="checkbox"/> Other _____ <input type="checkbox"/> Constantly grinding / chewing <input type="checkbox"/> Won't take dentures out at night <input type="checkbox"/> Difficulty getting dentures in or out		<input type="checkbox"/> Head faces downwards <input type="checkbox"/> Head is constantly moving <input type="checkbox"/> Dexterity or hand problems / arthritis <input type="checkbox"/> Can do some oral care but not all <input type="checkbox"/> Tired, sleepy or poor attention <input type="checkbox"/> Requires financial assistance for dental treatment <input type="checkbox"/> Other:
	Completed by:					

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Importance of Oral Care Plan

- Severe oral infections with uncontrolled diabetes
- Decreased ability to eat due to:
 - sores
 - burning mouth
 - burning tongue
- Increased recovery time from infections due to secondary oral infections



Oral Care for Diabetics



- **Diabetes can have a profound effect in the mouth**
- **Basic oral care is the key to good oral health in diabetics**

Products for Optimal Oral Health

Brushes:

- Soft
- Small head
- Replace frequently
- Replace before and after Candida TX



Toothpastes:

- Use only if individual is able to swallow and spit
- Use paste with fluoride

Other

- Use gel or non-alcohol mouth wash
- Use mop and go technique if swallowing problem



Additional Products for Optimal Oral Health

Inter-dental devices (if unable to floss)

- Small pointed brush
- Sulca brush
- Stimudents
- Inter-proximal brush



Inter-proximal brush

Mouth rinses

- Non - alcohol



Additional Products for Optimal Oral Health

Dry Mouth Products:

- use minimum 2x per day to max. 6x per day



Other things that help:

- Frequent sips of water
- Sugarless candy or gum



Antifungal Products:

- Various products ordered by dentist or physician



Steps to Oral Health for Diabetics

1. Provide an oral assessment
2. Develop daily oral care plan
3. Evaluate the mouth and the ADL
4. Control of blood sugar levels effects oral health
5. Perform daily oral care
6. Use additional oral care products if oral problems are present
7. Consult oral health professional
8. Routine visits with an oral health professional



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For more information contact Halton Region

Dial 311 or 905-825-6000
Toll free: 1-866-4-HALTON
(1-866-442-5866)
TTY 905-827-9833
www.halton.ca