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

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

### Oral Health Assessment Tool (OHAT) for Long-Term Care

<table>
<thead>
<tr>
<th>Category</th>
<th>0 = healthy</th>
<th>1 = changes</th>
<th>2 = unhealthy</th>
<th>Score</th>
<th>Action Required</th>
<th>Action Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lips</td>
<td>Smooth, pink, moist</td>
<td>Dry, chapped, or red at corners</td>
<td>Swelling or lump, white/red ulcerated patch, bleeding/ulcerated at corners*</td>
<td>1</td>
<td>Intervention 2 refer</td>
<td>☐ YES ☐ NO</td>
</tr>
<tr>
<td>Tongue</td>
<td>Normal, moist, pink</td>
<td>Patchy, fissured, red, coated</td>
<td>Patch that is red and/or white, ulcerated, swollen*</td>
<td>1</td>
<td>Intervention 2 refer</td>
<td>☐ YES ☐ NO</td>
</tr>
<tr>
<td>Gums and Tissues</td>
<td>Pink, moist, smooth, no bleeding</td>
<td>Dry, shiny, rough, red, swollen around 1 to 5 teeth, one ulcer or gum spot under denture*</td>
<td>Swollen, bleeding around 7 teeth or more, loose teeth, ulcers and/or white patches, generalized redness and/or tenderness*</td>
<td>1 or 2 = refer</td>
<td>☐ YES ☐ NO</td>
<td></td>
</tr>
<tr>
<td>Saliva</td>
<td>Moist tissues, watery and free flowing saliva</td>
<td>Dry, sticky tissues, little saliva present, resident thinks they have dry mouth</td>
<td>Tissues parched and red, very little or no saliva present; saliva is thick,ropy; resident complains of dry mouth*</td>
<td>1</td>
<td>Intervention 2 refer</td>
<td>☐ YES ☐ NO</td>
</tr>
<tr>
<td>Natural Teeth</td>
<td>No decayed or broken teeth/roots</td>
<td>1 to 2 decayed or broken teeth/roots*</td>
<td>4 or more decayed or broken teeth/roots, or very worn down teeth, or less than 4 teeth with no denture*</td>
<td>1 or 2 = refer</td>
<td>☐ YES ☐ NO</td>
<td></td>
</tr>
<tr>
<td>Denture(s)</td>
<td>No broken areas/teeth, dentures worn regularly and name is on</td>
<td>1 broken area/teeth, or dentures only worn for 1 to 2 hours daily, or no name on denture(s)</td>
<td>More than 1 broken area/teeth, denture missing or not worn due to poor fit, or worn only with denture adhesive*</td>
<td>1 = 0; denture 2 refer</td>
<td>☐ YES ☐ NO</td>
<td></td>
</tr>
<tr>
<td>Oral Cleanliness</td>
<td>Clean and no food particles or tartar on teeth or dentures</td>
<td>Food particles, tartar debris in 1 or 2 areas of the mouth or on small area of dentures, occasional bad breath</td>
<td>Food particles, tartar debris in most areas of the mouth or on equal areas of dentures, or severe halitosis (bad breath)*</td>
<td>1 = Intervention 2 refer</td>
<td>☐ YES ☐ NO</td>
<td></td>
</tr>
<tr>
<td>Dental Pain</td>
<td>No behavioral, verbal or physical signs of pain</td>
<td>Verbal and/or behavioral signs of pain or main such as pulling of face, chewing lips, not eating, depression*</td>
<td>Physical signs such as swelling of cheek or gum, broken teeth, ulcers &quot;gum boil&quot;, as well as verbal and or behavioral signs*</td>
<td>1 or 2 = refer</td>
<td>☐ YES ☐ NO</td>
<td></td>
</tr>
</tbody>
</table>

### 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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Common Oral Conditions seen in Diabetics

- Periodontitis (gum disease)
- Dry mouth (zerostomia)
- 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 effects 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 (Zerostomia) 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.
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

**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
Halton Region wishes to thank:

Marlene Heics, RDH
Glen Chenard, RN,BHScN,CDE,CCHN(C)CHPCN(C),CVAA(C)

For their expertise and collaboration with Halton Region.
References

References

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