



Oral Health Care for Residents in Long Term Care Facilities



Terminology

- Dental plaque
 - Composed of colonies of bacteria, yeast, fungi and debris in a sticky film that adheres to the teeth
 - Must be removed every 24 hours



Terminology

- Biofilm
 - More accurate term for dental plaque and is used interchangeably with the term dental plaque
 - Composed of colonies of bacteria, yeast, fungi
 - Adheres to surfaces
 - Commonly resistant to antibiotics



Terminology

- Dental caries
 - Commonly referred to as cavities or dental decay
 - Caused by the acids from biofilm; can occur at any age



Terminology

- Dental calculus
 - Commonly called tartar
 - Dental biofilm not removed daily combines with minerals to form calculus
 - Hard substance that must be removed professionally and cannot be removed with a toothbrush



Terminology

- Gingivitis
 - Commonly known as gum disease
 - Inflammation of the gums
 - Redness, swelling, bleeding



Terminology

- Periodontitis
 - Also periodontal disease, commonly known as pyorrhea
 - Redness, swelling, bleeding, loss of bony support for the tooth



Why is daily oral hygiene such a challenge in nursing homes?

- 2008 nursing home survey:
 - Better education and training is needed for nursing assistants who provide care
 - Strategies are needed for care – resistant residents
 - Nursing assistants have too many other jobs to do and not enough time to do daily oral hygiene care



We want to help you overcome these problems.



There is good evidence to support this model of oral care.

A 2008 study in a Florida nursing home found:

Nursing home residents who had daily mouth care provided by nursing assistants whose only job was to provide oral care had much less risk (3 times less risk) of dying from pneumonia than those residents who did not receive the daily care from the nursing assistant designated to do oral care.

Bassim CW, Gibson G, Ward T, Paphides BM, DeNucci DJ. Modification of Risk of Mortality from Pneumonia with Oral Hygiene Care, J Am Ger Soc, 2008, 56 (9): 1601-1607.



Pneumonia is the number one cause of death in nursing homes.



TYPES OF PNEUMONIA

- Aspiration
- Community acquired
- Atypical
- Bacterial
- Viral
- Hospital acquired

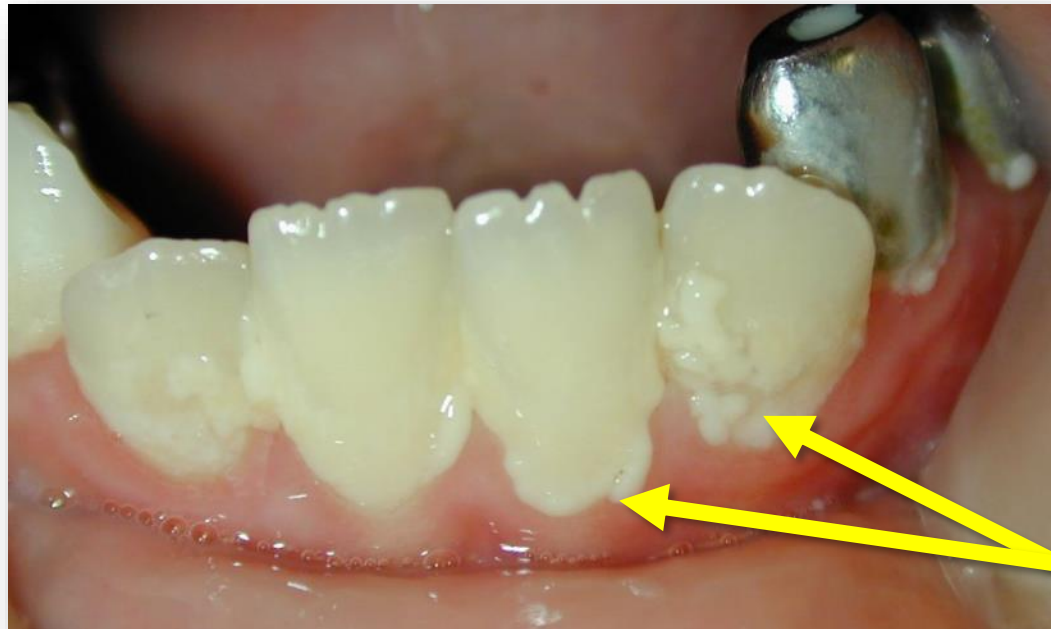


THE IMPORTANCE OF DAILY ORAL CARE FOR THE ELDERLY



DENTAL BIOFILM:

A substance filled with bacteria which forms **EVERY DAY** on teeth.

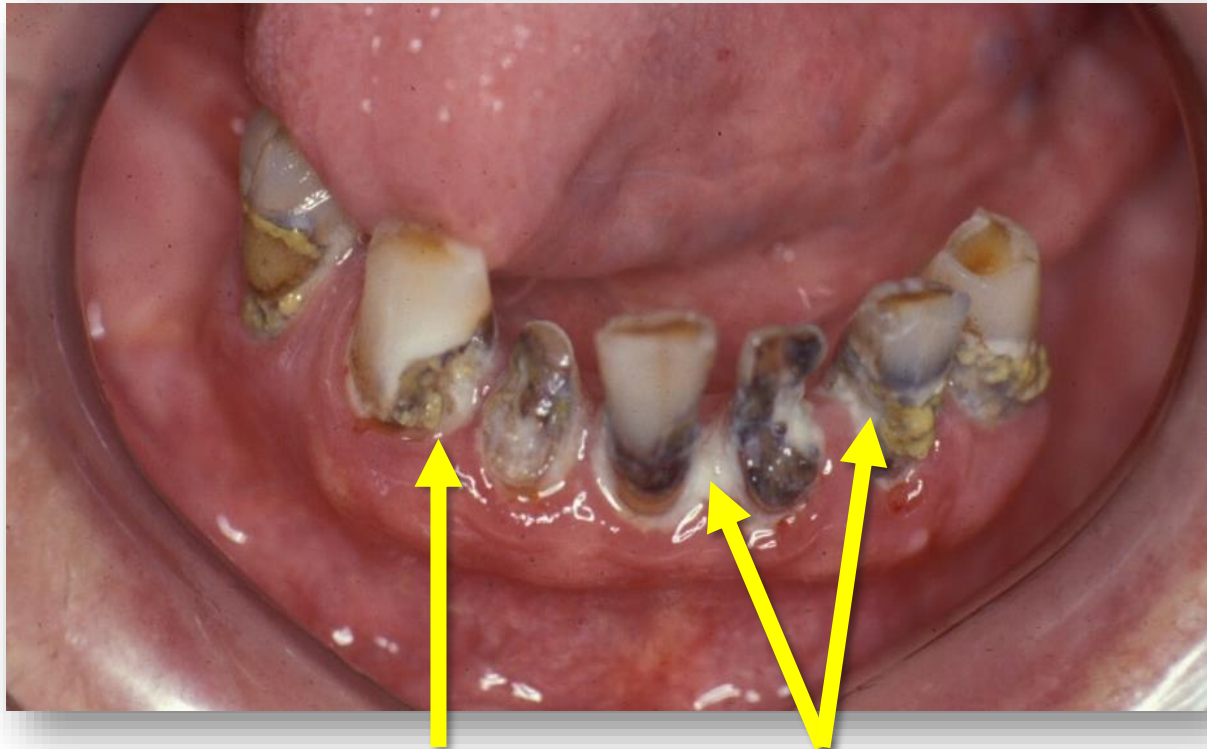


BIOFILM

Thick biofilm forms if a person does not brush regularly. May be clear, white or may be stained and appear yellow.



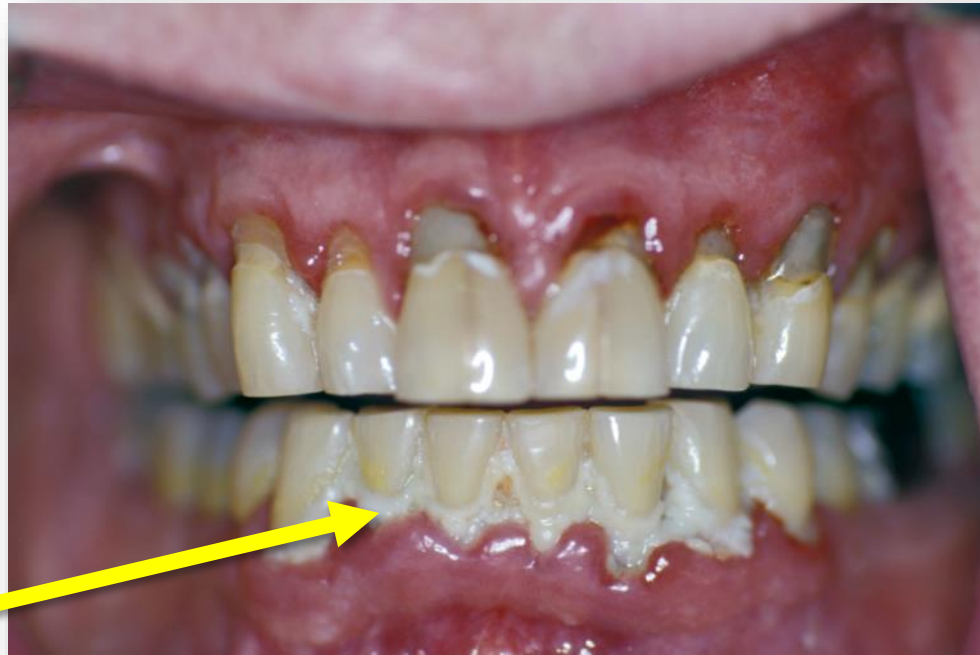
Acids from dental biofilm cause dental caries (tooth decay).



TOOTH DECAY BIOFILM



Dental biofilm causes gum diseases: gingivitis and periodontal disease.



BIOFILM

Note gums – very red and swollen.
This person has gingivitis.



BIOFILM **must** be removed daily by brushing and flossing or it will harden to become calculus (tartar).



CALCULUS



Biofilm

- ... and calculus may **both** be present
- Soft, removable by toothbrushing



BIOFILM



Calculus

Hard and must be removed by a professional cleaning



Darker calculus surrounded by white biofilm



Tooth decay and gum disease can lead to:

- Pain
- Infection
- Tooth loss

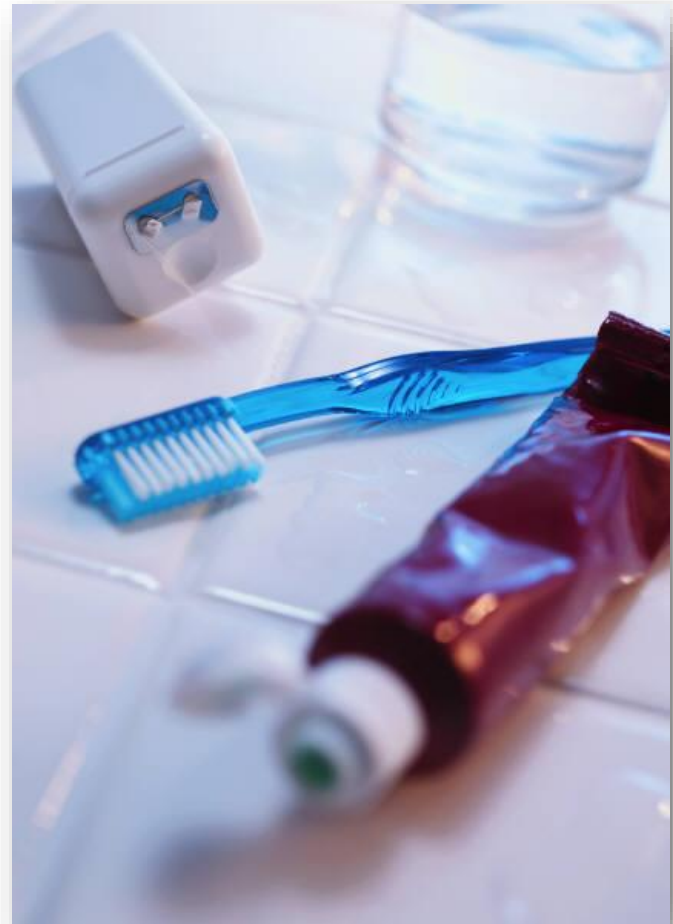
Many people believe there is nothing they can do to prevent tooth loss or dental problems.
But this is not true...



Brushing & Flossing Can Prevent

- Gum disease
- Tooth decay
- Tooth loss

Daily mechanical removal of plaque by brushing and flossing the teeth: best way to prevent decay and gum disease.



Why is toothbrushing really so important in nursing homes?

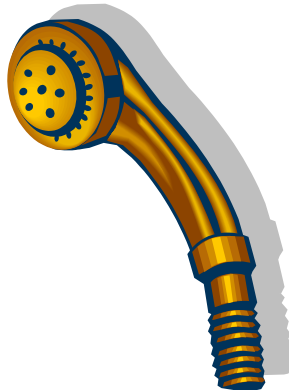
Three critically important reasons for making sure residents in nursing homes get their teeth brushed every day.

3



1. It is the law.

Nursing facilities must ensure that residents receive the care they need to maintain good **PERSONAL** and **ORAL HYGIENE** (keeping the mouth clean).



2. A dirty mouth could be making residents sick.

Serious health problems in the body may result if biofilm is **NOT** removed from teeth by regular brushing.



Bacteria from Biofilm...

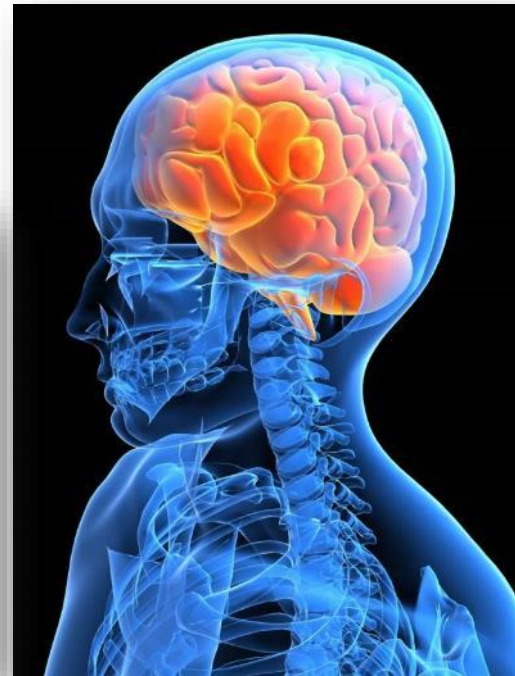
- On the teeth enter into the blood stream
- Can cause hardening of the arteries, increased risks of blood clots and problems with blood sugar.



Did you know?

Gum disease may increase risk of:

- Stroke
- Heart disease
- Dementia



Diabetic residents with severe gum disease have more trouble controlling their blood sugar levels.

So this...



...can affect this.





Studies have shown that treating gum disease improves blood sugar levels.



Diabetes residents with severe gum disease

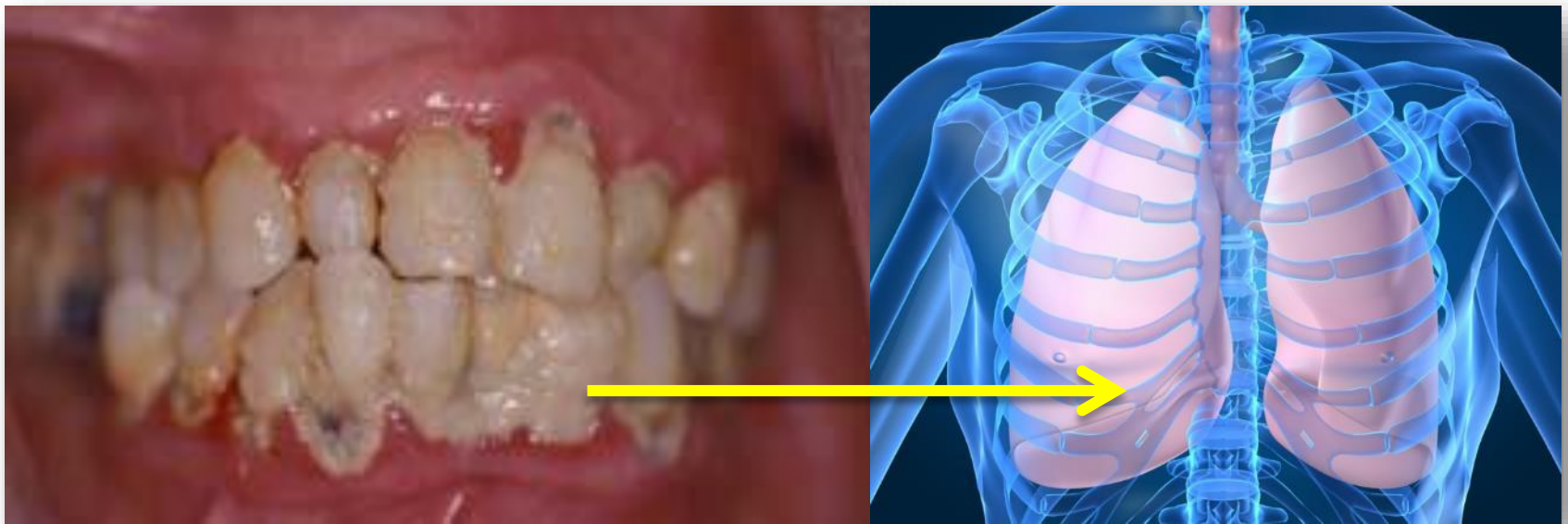
- More likely to die from complications
- Three times the risk of death from heart disease and/or kidney disease compared with those who had no gum disease, or mild or moderate gum disease
 - 11-year study of 628 people with Type 2 diabetes

Saremi et al. Periodontal disease and mortality in Type 2 diabetes. Diabetes Care. 2005;28:27-32.



Breathing in germs from a dirty mouth is a significant risk factor for pneumonia.

Germ from this biofilm can get into the lungs and cause pneumonia



Quagliarello V et al. Modifiable risk factors for nursing home acquired pneumonia.
Clin Infect Dis 2005; 40: 1-6.



Fifteen Studies: Brushing the teeth reduces pneumonia in nursing home residents.

Brushing removes bacteria in the mouth and lowers the chance of pneumonia.



Sjogren P et al. A systematic review of preventive effect of oral hygiene on pneumonia and respiratory infections in elderly people in hospitals and nursing homes. J Am Geriatr Soc 2008;56:2124-2130.



Aspiration Pneumonia

Nursing home residents who did not receive oral care were over twice as likely to die from pneumonia when compared to residents who received daily oral care.



Yonemana T et al. Oral care reduces pneumonia in older residents in nursing homes.
J Am Geriatr Soc 2002;50:430-33.



3. A healthy mouth helps people eat proper foods and prevents pain.

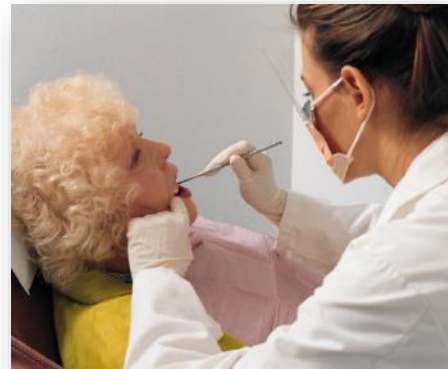


Oral hygiene should be provided **twice** a day, but at a minimum **once** daily.



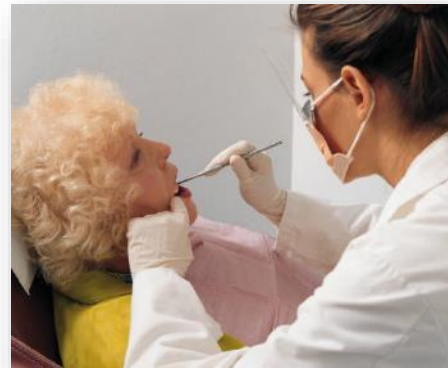
Individualized Oral Hygiene Plan

- **EACH** resident should have a daily oral hygiene plan
- Developed by the dental hygienist or dentist responsible for the nursing home residents or the resident's personal dentist or dental hygienist



Individualized Oral Hygiene Plan

- **EACH** resident's oral hygiene plan should be based on their individual needs
- The oral hygiene plan should be in writing and displayed in each resident's room



If resident can do their own mouth care...

- You may need to remind each day
- Write out a reminder in large, bold letters (may need to laminate) to politely remind residents who tend to forget to brush their teeth and place somewhere they will see it often.



If resident can do their own mouth care...

- Keep mouth care supplies in the same place
- Label the supplies with the name of the item (e.g. label toothpaste with label that says **“TOOTHPASTE.”**)
- Supplies that belong to the resident should be labeled with the resident’s name



Before providing oral care to anyone

- Check with the charge nurse each day
- Assess the resident's problems with dysphagia if applicable
- Are there any residents who should **not** receive oral care that day?



Before providing oral care to anyone

- Check to see if you need to change the oral hygiene routine for any residents to eliminate liquids and toothpaste (any dietary restrictions for residents, choking hazards, swallowing problems)



Do **NOT** use toothpaste, mouthwash, or water for the residents with the following conditions:

- Comatose residents
- Residents on a restricted diet of thickened liquids who cannot have thin liquids
- Care resistant residents
- Residents who hold liquids in their mouth because they cannot or will not spit, but choose to swallow instead



How to provide oral care without toothpaste, mouthwash or water

- Simply moisten a toothbrush with a very small amount of water or diluted mouthwash and brush teeth as you normally would
- After brushing wipe the mouth out with a toothette or gauze moistened with water or diluted mouthwash



Choose a toothbrush with soft bristles and a small head



You may find that a child's toothbrush works best for some patients



Toothbrushes should be replaced every **two-three months**.



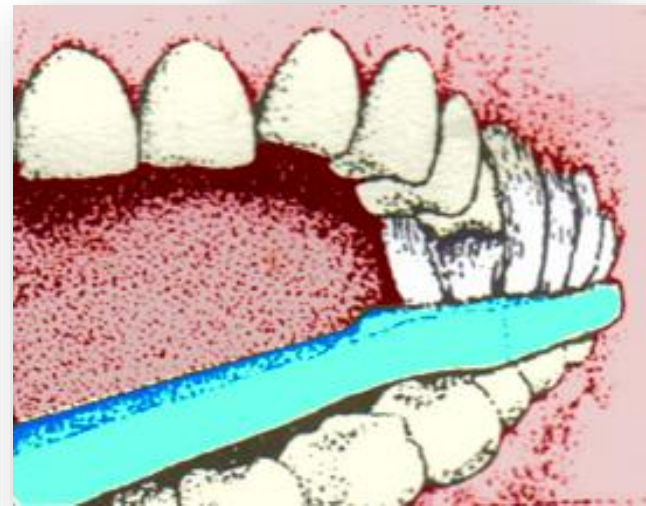
Special Brushing Aids

- If possible, residents should be encouraged to brush their teeth independently.
- The dental hygienist or facility dentist can suggest appropriate aids.

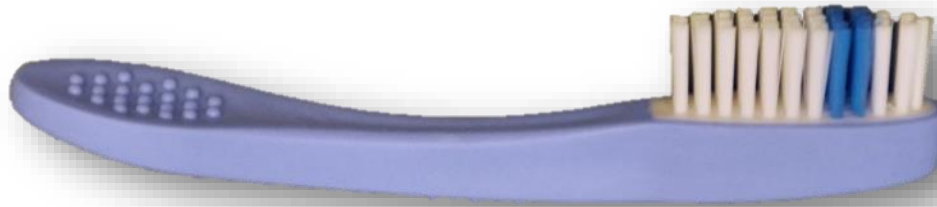


The Collis Curve Toothbrush

- Three layers of bristles
- All three sides of teeth brushed at one time



The Loops Flexbrush

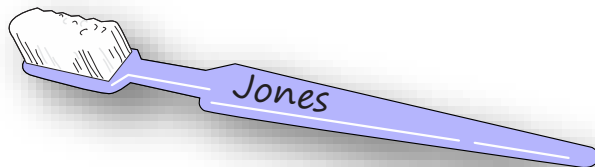


A suction toothbrush may be helpful to remove excess saliva.



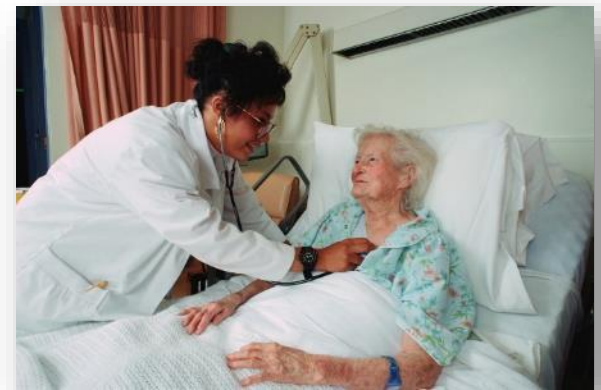
All personal oral hygiene supplies: Label with permanent ink

- Toothbrush
- Toothpaste
- Mouthwash



Set-up for individual resident oral hygiene care

- Applies to caring for resident in their room
 - Ambulatory resident that can sit in a chair
 - Resident may be sitting in a wheel chair
 - Resident may require bedside care



Set-up for individual resident oral hygiene care

- Confirm that required supplies are stocked
- Set up the necessary oral hygiene supplies on a clean towel near the resident
- Three basic set-ups for residents with:
 1. Natural teeth
 2. Full dentures, no natural teeth
 3. Some natural teeth and partial dentures



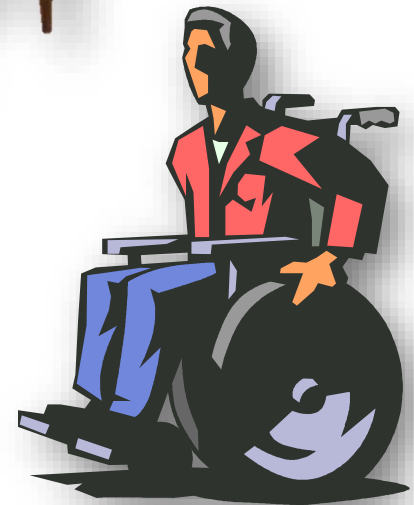
While you are setting up supplies, greet resident and explain what you are doing.

Communication is essential: Confirm the resident understands what is going to happen



If possible, the resident should be sitting upright for oral care

If resident cannot get out of bed, elevate head of bed.



After positioning resident...

- Place a towel around the resident's neck
- Wash hands thoroughly
- Put on gloves, mask and safety glasses



REMEMBER: After you have washed your hands and gloved up

- **DO NOT TOUCH** anything except the resident's own oral hygiene supplies before providing oral care.



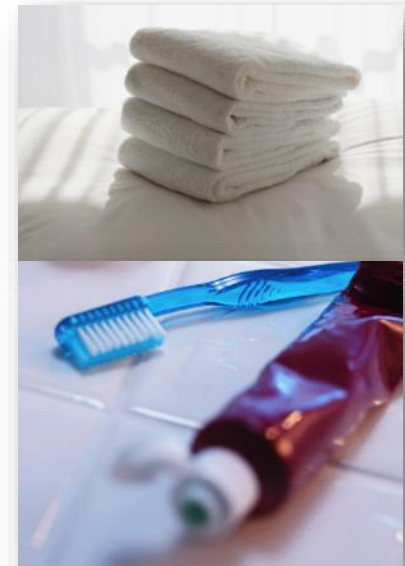
REMEMBER: After you have washed your hands and gloved up

- Touching other things will contaminate your gloves that will go into the resident's mouth and could make them sick.



Residents with Natural Teeth

- Gloves, mask, safety glasses
- Two clean towels
- Two paper cups
 - One for mouthwash
 - One for water
- Soft toothbrush
- Fluoride toothpaste
- Mouthwash or Biotene™ oral products



How much toothpaste?

To brush teeth, moisten toothbrush with water and if safe to use toothpaste, place a pea-sized amount on the bristles of toothbrush.

**This is
TOO MUCH!**



**Should be
pea sized**



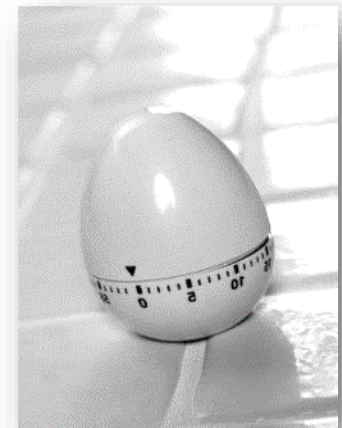
If toothpaste is contraindicated

- Disposable toothbrushes
- Toothbrushes impregnated with toothpaste or xylitol



Brush teeth for a minimum of two minutes

- An egg timer or clock may be used to check time.
- If resident is brushing their own teeth, do **NOT** rush them by turning off water or by saying, “That’s enough.”



What if resident can't hold their mouth open for toothbrushing?

- Mouth props may be purchased for this purpose
- May place a moist, clean rolled up washcloth between the back teeth



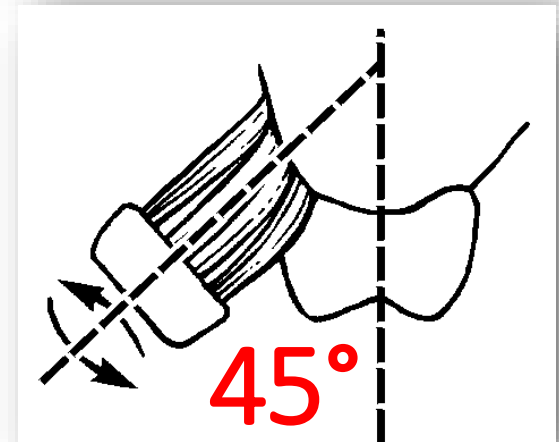
What if resident can't hold their mouth open for toothbrushing?

- May place taped tongue blades wrapped in gauze and plastic between the back teeth

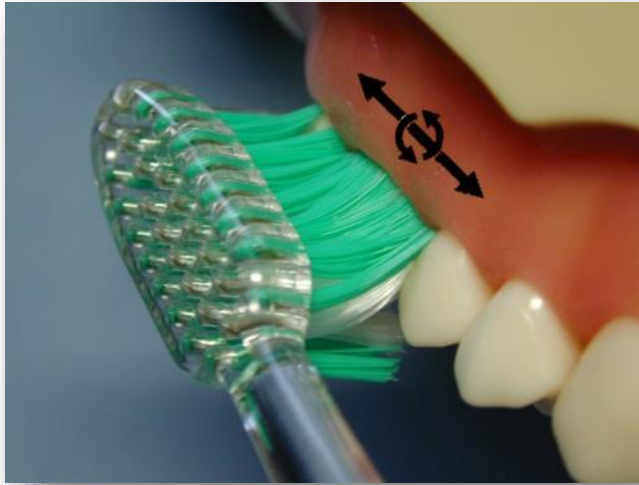


How to Brush the Teeth

- Start on upper right side
- Place brush on cheek side of back tooth
- Place tips of the bristles at a 45° angle to the gums
- Press lightly to spread the bristles under and around the gums



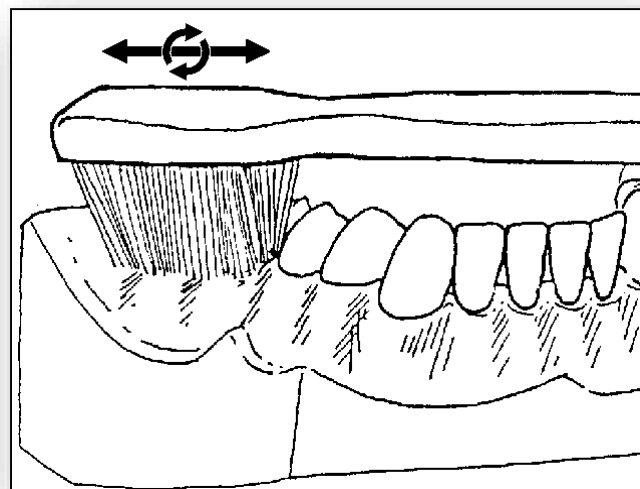
Move the brush (wiggle) in a back-and-forth motion to remove plaque



Brush the outside, inside, and tops of the upper teeth



Move to the bottom teeth



Brush the outside, inside, and tops of the lower teeth



Brush the inside
of the bottom teeth
LAST as this is the
area most likely
to cause gagging
in resident.



Manual Toothbrush



Electric Toothbrush



What if gums bleed when I brush the teeth?

- Inflamed, a sign of gum disease
- With continued daily toothbrushing, the gums should stop bleeding
- Gums may bleed even more easily on residents who are on a blood thinner



Cleaning Tongue

Use a gentle sweeping motion with toothbrush or a tongue cleaner towards the outside of mouth.



Rinse and spit with water

- After brushing, help the resident to swish with water and spit into a paper cup IF the resident is able to do so.
- If resident cannot get out of bed, elevate head of bed.



Rinse and spit with diluted mouthwash

- Swish with mouthwash and spit into the paper cup
- The dental hygienist or facility dentist can help you select the best mouthwash for each resident



Some mouthwashes are formulated to target specific oral problems

- Prevention of decay
- Dry mouth
- Gum disease
- Bad breath



The specific type of mouthwash used for each resident should be listed on the resident's individualized oral care plan.



If the resident has dentures, they should be cleaned daily.



Set-up for residents with dentures

- Gloves, mask, safety glasses
- 2 clean towels
- 2 paper cups
- Denture cup
- Denture brush and denture cleaning paste
- Mouthwash or Biotene™ oral products



Removal of Upper Denture

1. If possible have resident close mouth and puff out cheeks to loosen seal.
2. Place your right and left forefingers at the top edge of the denture's right and left sides.
3. Place your right and left thumbs on the biting surfaces of the denture.



Removal of Upper Denture

4. Rock denture from right to left and carefully pull down.
5. Turn denture sideways to remove from mouth.
6. Place denture in labeled denture cup.



Denture Removal



General Guidelines for Denture Care

1. Place a cloth towel in the sink and fill the sink with warm water.
2. Never put dentures directly over the sink without a towel – if you drop the denture it could break.



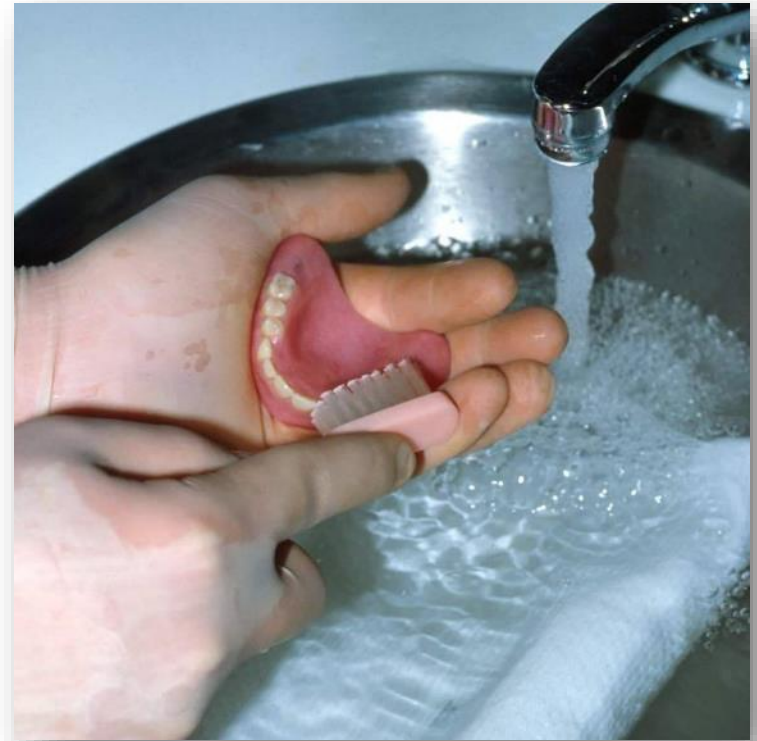
General Guidelines for Denture Care

3. Bring the denture to the sink in a cup or the resident's denture container.
4. Hold denture in the palm of hand over the sink.



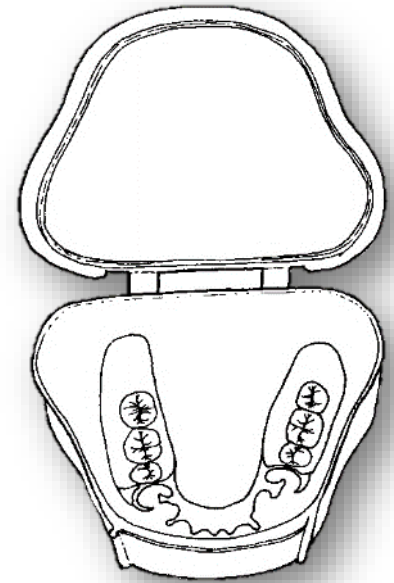
General Guidelines for Denture Care

5. Apply denture paste to denture brush.
6. Scrub denture on all surfaces using a denture brush.
7. Rinse removable denture completely.



Check the denture each time you clean it.

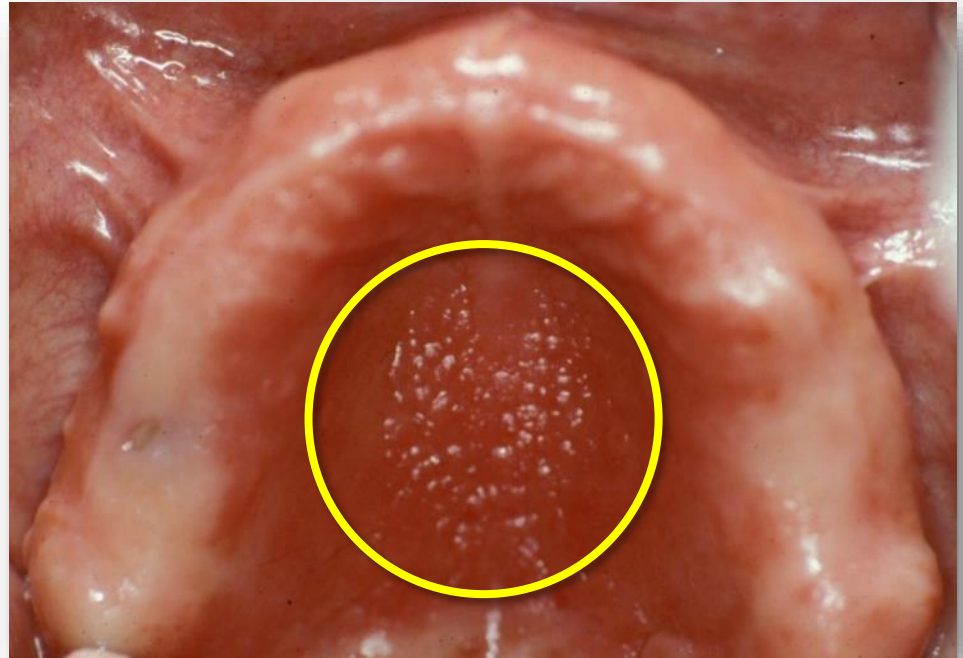
- Look for cracks, sharp edges, or missing/broken teeth
- If you find a problem, put the denture in the resident's labeled storage container and let the charge nurse know about the problem



Remove Dentures Every Night

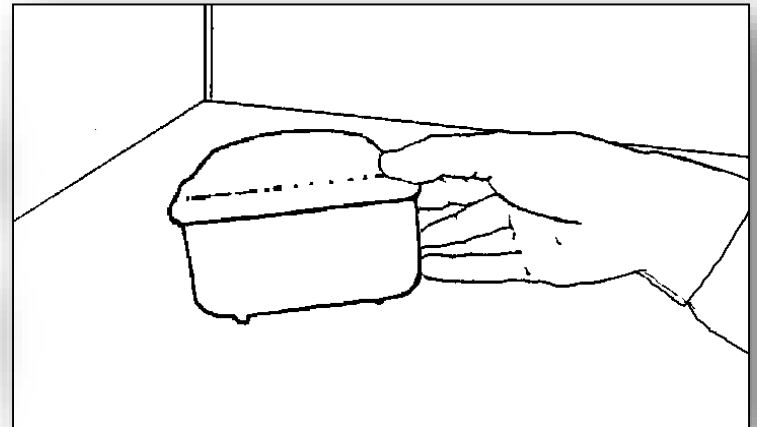
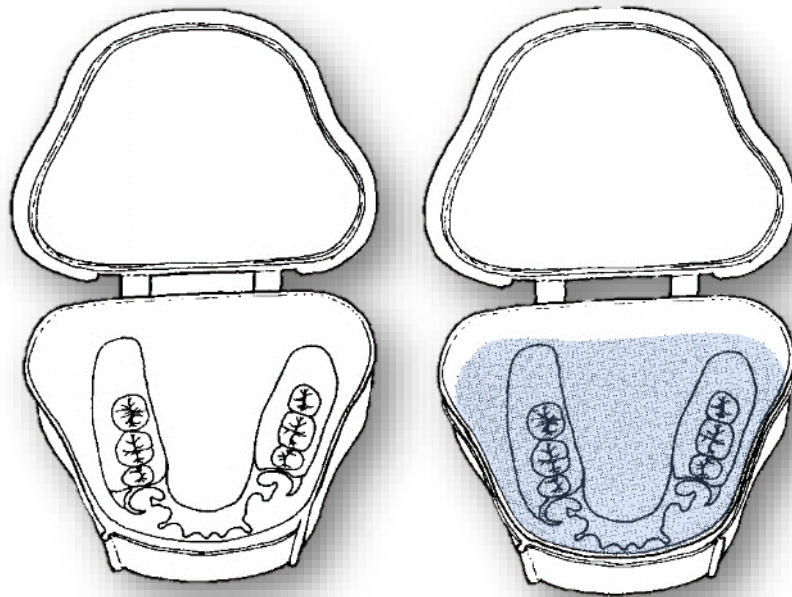
It is important to remove dentures at night to let the mouth rest

Irritation to the roof of the mouth caused by not taking the denture out at night.



Storage of Dentures

- Store in a labeled denture container
- Cover with clean water
- Place in a safe area



Storage of Dentures

For Disinfection:

- Use solution of household bleach (Clorox®)
- 1 part to 10 parts water
- Kills microorganisms
- Removes discolorations and staining
- Soak for 20 to 30 minutes
- Rinse thoroughly with water



Storage of Dentures

For Nightly Storage:

- Mix 1 part bleach to 100 parts water (~2 tablespoons per gallon)
- Store in gallon container
- Use to soak dentures overnight
- Rinse thoroughly with water



Resident with No Natural Teeth Remaining

If the resident cannot get out of bed:

- Elevate head of bed
- Gently brush the gums and tongue with an extra soft toothbrush dipped in diluted mouthwash



Resident with No Natural Teeth Remaining

If the resident cannot get out of bed:

- If this is uncomfortable, try using a toothette (swab or a 4x4 gauze) dipped in diluted mouthwash to clean inside of the mouth
- Help the resident to swish with diluted mouthwash and spit into a paper cup



Residents with natural teeth and partial dentures

- Gloves, mask, safety glasses
- 2 clean towels
- 2 paper cups
 - One for mouthwash
 - One for water
- Denture cup
- Denture brush and cleaning paste
- Soft toothbrush
- Fluoride toothpaste
- Mouthwash or Biotene™ oral products



Open resident's mouth and carefully remove partials

- First remove **lower** partial, easier to remove
- Gently lift up and turn sideways to remove lower partial from the mouth
- Place partial dentures in resident's labeled denture cup



Removal of Partials

- **Upper:** Carefully place fingernail under clasp on either side of upper partial to loosen and pull down
- Place in denture cup



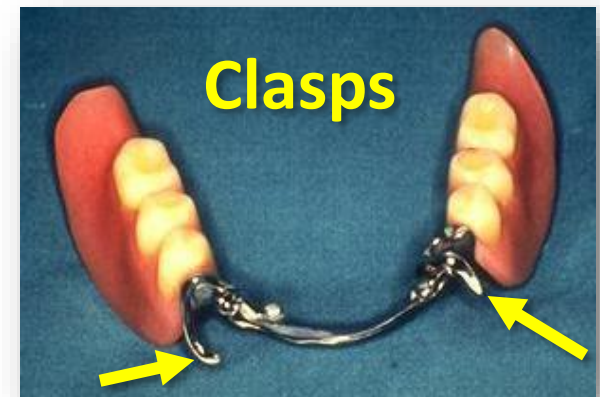
Cleaning of Partial Denture

- Clean the partial denture the same as a full denture.
- Be careful when holding and cleaning the clasps. If bent, partial will not fit correctly.



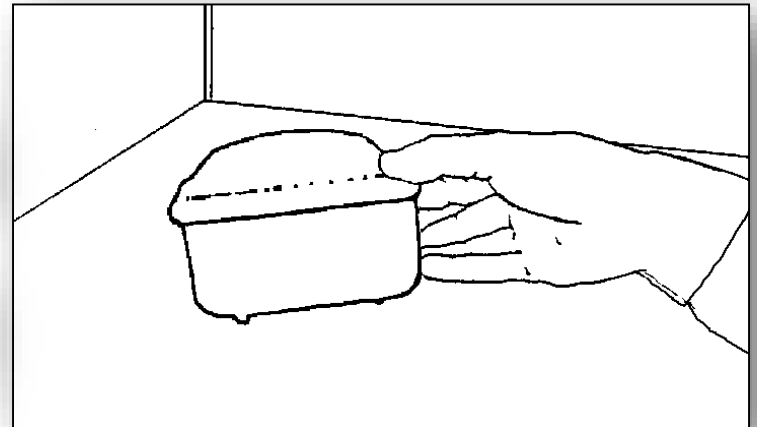
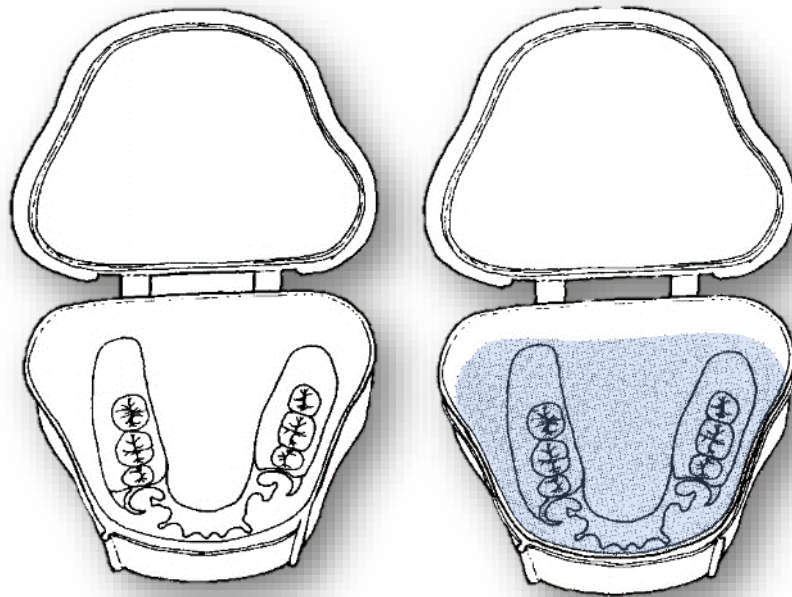
Cleaning of Partial Denture

- If clasp is accidentally bent, do not try to bend it back yourself. **Only a dentist should adjust a bent clasp.**
- The point on the end of the clasp is often sharp and may puncture a glove or cause a puncture wound when handling the partial denture.



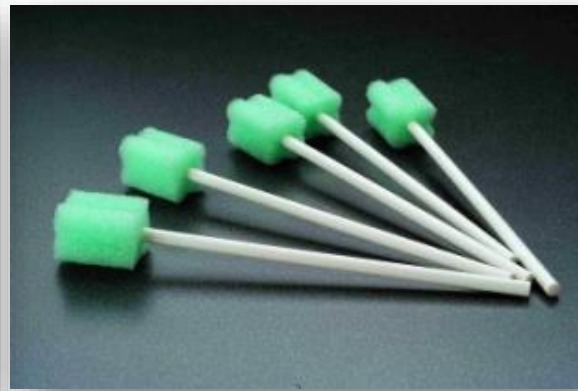
Remove Partials Every Night

- Store in a labeled denture container
- Cover with clean water
- Place in a safe area



If resident has any natural teeth remaining, they should be brushed.

- Using a gauze or swab (toothette) alone **WILL NOT** clean the teeth sufficiently.
- A toothbrush must be used to effectively remove biofilm from teeth.



When you are finished with oral care for both those with natural teeth and without...

- Clean up and store supplies
- Rinse toothbrush/denture brush well and place in the driest cleanest place in room
- Expose toothbrush /denture brush to air to dry



When you are finished with oral care for both those with natural teeth and without...

- Remove gloves and wash hands
- Make a note of the care you provided in the appropriate place



Report to charge nurse or dentist any of the following:

- Pain
- Sores, blisters or ulcers
- Swellings, growths or lumps
- Discoloration – red or white areas



Report to charge nurse or dentist any of the following:

- Broken or cracked dentures
- Broken or decayed teeth
- Dry mouth



The resident may be more cooperative if you...

...let them know that what you are about to do won't hurt them but that it will help them be healthier and make their mouth feel clean.



The resident may be more cooperative if you:

- Approach resident from front at eye level
- Are positive
- Maintain eye contact
- Avoid baby talk
- Smile, praise and encourage them often



The resident may be more cooperative if you:

- Give breaks often
- Use a gentle touch
- Always use a very soft bristle toothbrush with a small head. This is more comfortable for the resident.



The resident may be more cooperative if you:

- Have the resident hold toothbrush then with your hand over the resident's hand move the toothbrush over the teeth
- This may help them remember how to brush



The resident may be more cooperative if you:

- Show and act out
- Demonstrate what you want the person to do
- Show them what you mean by brushing



What if resident won't open?

- If resident clenches teeth and won't open their mouth for toothbrushing, don't force their mouth open.
- If possible, brush the outside surfaces
- Brushing some of the teeth is better than brushing none of the teeth.



What if resident is angry and refuses care?

- Don't force it.
- Try again later when the resident may feel better



The Take-home Message...

- **Daily oral hygiene (tooth brushing)** for residents in long-term care facilities is the single most cost effective method for preventing aspiration pneumonia.
- **Aspiration pneumonia** is the **number one** cause of hospital readmissions for this vulnerable segment of our society.



THANK YOU...

Danke
Merci
gracias
grazie
谢谢
ありがとう
спасибо
謝謝

...FOR ALL YOU DO!



References

1. Oral health specialist training program: a unique oral health curriculum for nurses and nursing assistants in nursing homes. Curriculum provided by University of Kentucky College of Dentistry Divisions of Public Health Dentistry. Photographs: Dr. Robert Henry. This project funded by the Dental Trade Alliance Foundation.
2. The Southern Association of Institutional Dentists *Preventive dentistry for person with severe disabilities: self study course*. Module 11: 2001.
3. Jablonski R, Therrien B, Mahoney E, Kolanowski A, Gabello M, Brock A. An intervention to reduce care resistant behavior in persons with dementia during oral hygiene: a pilot study. *Spec Care Dentist* 21:77-87, 2011.



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4. Snow, Teepa. Expert in dementia care who trains health care providers and families.
5. Keeping the Older Person's Mouth Healthy, A Caregivers Handbook. Saxe SS, Henry RG, Wekstein MW. Department of Oral Health Science, University of Kentucky College of Dentistry, 1988.
6. Chalmers JM. Behavior management and communication strategies for dental professionals when caring for residents with dementia. Spec Care Dentist 20:147-155, 2000.



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