CONDUCTING AN ORAL EXAM USING THE “4L’S”

Introduction

This section contains information on how to conduct a brief oral exam for adults and older infants using the “Four L’s” screening oral examination technique, followed by a series of visuals of common problems that may be found during the exam. There is also a visual presentation of the “knee to knee” positioning technique for infants.

Following this introduction, there are visual representations of common problems found during an oral screening exam. You might also want to read through the contents of Tab Five, which provides treatment recommendations for common problems found in adults and children during an oral screening exam. There are separate sections of Tab Five for adults and children.

Procedure for Brief Oral Exam: Adults and Older Infants

Oral assessment in the primary and prenatal care settings includes a screening oral exam. The purpose of the exam is to identify signs of white spot lesions, caries, gum disease, oral lesions or conditions in the mouth that increase risk of disease such as dry mouth or presence of appliances. The “Four L's” screening oral exam recommended and taught in this program includes the four quick steps described below. We call the exam the “Four L’s”. (Note that the examiner will need a glove, a piece of gauze and good lighting). See the graphic illustrations which follow.

◆ Lift and Lower the Lips

Check the gum line for white spot lesions or caries that form at gum line, Look for signs of gum disease (edema, redness, recession or bleeding). Assess lips for mucus indications.
◆ **Look at the Teeth**

View teeth for:

- white spot lesions/caries
- missing or broken teeth
- fillings or crowns
- appliances (braces, partials, dentures)

◆ **Lasso the Tongue**

Loop the gauze around the tongue, gently raise it and move it laterally in both directions to see under the tongue for (a) bony or soft tissue lesions; (b) signs of adequate or inadequate saliva flow or (c) erythroplakia or leukoplakia (red or white plaques that cannot be wiped away).

◆ **Lap Around the Gums**

With gloved finger palpate the upper and lower gums for:

- masses (fluctuant, hard masses or other mucosal lesions)
- pain with palpation
- spongy, bleeding gums
Screening Oral Exam Demonstrated on an Adult

The Four "Ls" for Oral Screening Exam:
Part of Every Physical Exam

- Lift/Lower the lips
- Look at teeth
- Lasso the tongue
- Lap around the gums with your finger

Tab Two: Conducting an Oral Screening Exam Using the "4L's"
Knee to Knee Positioning for Oral Exam in the Infant/Young Child

1. Parent and provider sit facing one another in a knee to knee position.

2. Place child’s head in the health care provider’s lap so that the child can see the parent.

3. The child’s legs should wrap around the parent’s waist.

4. The parent holds the child’s hands away from the face.

5. In this manner, the health care provider can perform an oral/pharyngeal exam and apply fluoride varnish.

6. The fundamental maneuvers of performing the oral exam remain the same.
Visual Examples of Common Problems Found During an Oral Screening Exam

Christine Cogil, DNP, FNP-BC, MSN: Assistant Professor
College of Nursing

**TOPICS**

**Oral Assessment: Lift and lower lips**
- Actinic Cheilitis- Slide 1
- Angular Cheilitis- Slide 2
- Xerostomia- Slide 2
- Herpetic lesions –Slides 3 and 4
- Aphthous ulcer- Slides 5 and 6
- Mucocele- Slides 7 and 8
- Exostosis- Slide 9

**Intra-oral assessment: Look at the teeth**
- Dental caries- Slide 1
- Fluorosis- Slide 2
- Braces- Slide 3
- Dry socket- Slide 4

**Lasso the tongue**
- Candidiasis- Slide 1
- Geographic Tongue- Slide 2
- Syphilis- Slide 3
- Ankyloglossia (Tongue Tie)- Slide 4
- Leukoplakia/Erythroplakia- Slide 5
- Tori- Slide 6

**Intra-oral assessment: Lap around the gums**
- Pyogenic Granuloma- Slide 1
- Gingivitis- Slide 2
- Periodontitis- Slide 3
- Dental Abscess- Slide 4
DENTAL APPLIANCES

- Remove unfixed appliances for oral exam
- Partials, Dentures, Retainers
  - Risk for candidiasis, unobserved lesions

The Four “Ls” for Oral Screening Exam: Part of Every Physical Exam

- Lift/Lower the lips
- Look at teeth
- Lasso the tongue
- Lap around the gums with your finger
**ACTINIC CHEILITIS**

- **Early Stage**
  - Mild erythema
  - Swelling
  - Fine scaling on vermilion border
- **Progressing**
  - Skin thin and smooth
  - White-gray areas intermingled with red, scaly region
- **Ulceration**
  - Biopsy for malignancy
HERPES SIMPLEX
A.K.A.
COLD SORE OR FEVER BLISTER

- Stimuli that trigger viral replication = clinical lesions:
  - Stress
  - Sunlight
  - Hormonal changes
  - Fatigue
  - Fever

XEROSTOMIA (DRY MOUTH)

- Fissured tongue
- Ropy saliva
- Dry mucous membranes
- Halitosis
- Difficulty chewing, speaking, swallowing
- Angular cheilitis
- Increases risk for caries
HHV: PRIMARY HERPETIC GINGIVOSTOMATITIS

- Initial infection with herpes simplex virus
  - Herpes is found on Keratinized tissue

- Children between 6 mos. and 6 yrs.
- S/S:
  - Fever
  - Malaise
  - Cervical lymphadenopathy
  - Painful, erythematous swollen gingiva
  - Multiple tiny clusters of vesicles on perioral skin, vermillion border of lips, and oral mucosa
  - Vesicles progress to ulcers

HERPES VS. APHTHOUS ULCERS

LOCATION, LOCATION, LOCATION

Herpes: Keratinized Tissue
- Lips
- Hard Palate
- Tongue

Aphthous Ulcers: NON-Keratinized tissue
- Buccal and labial mucosa
- Soft palate
APHTHOUS ULCERS - A.K.A. CANKER SORES
NON-KERATINIZED TISSUE

- Very common (20%)
- More prevalent in females
- S/S:
  - Yellow-white center
  - Red halo
  - Clusters or single lesion
  - Painful
- Associated with:
  - Trauma
  - Dental TX
  - Acidic, citrus foods
  - Hormonal changes
  - Stress

MUCOCELE
MUCOCHEL

- Causes
  - Severed minor salivary gland duct causing secretions to spill into adjacent connective tissue
  - Inflammatory response causes granulation tissue to wall off mucus → Forms a cyst-like structure
  - Most common location: Lower labial mucosa

EXOSTOSIS

- Genetic
- Exacerbated by bruxism
INTRA-ORAL ASSESSMENT: LOOK AT THE TEETH
Tab Two: Conducting an Oral Screening Exam Using the “4L’s”

**FLUOROSIS**

- **NORMAL**
- **MILD**
- **MODERATE**
- **SEVERE**

**BRACES**

Risk for white spot lesions/decay
**DRY SOCKET**

- Post operative complication of extractions when blood clot is lost before healing takes place

Clinically: tooth socket is empty and bone is exposed
- Very painful
- Foul odor
- Bad taste
- No infection
- Common location: 3rd molars

Blood clot forms after tooth extraction which leads to healing and new bone formation.

If a blood clot doesn’t form or is lost too early, a painful “dry socket” occurs.

---

**LASSO THE TONGUE**
**CANDIDIASIS**

**GEOGRAPHIC TONGUE**

**S/S:**
- Erythematous patches surrounded by a white or yellow border
- Diffuse areas devoid of filiform papillae
- Distinct presence of fungiform papillae
- Remission and changes in the depapillated areas
- Sometimes burning sensation

**TX:**
- None
# Tab Two: Conducting an Oral Screening Exam Using the “4L’s”

## SYPHILIS

<table>
<thead>
<tr>
<th>Primary Stage chancre</th>
<th>Secondary Stage</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Single or multiple lesions</td>
<td>• Starts with rash – typically rough, red or reddish brown spots on palms of hands and soles of feet</td>
</tr>
<tr>
<td>• Lasts 3-6 weeks without treatment</td>
<td>• Mucous patches - multiple, painless, grayish-white plaques covering ulcerated mucosa</td>
</tr>
<tr>
<td>• Regional lymphadenopathy</td>
<td></td>
</tr>
</tbody>
</table>

### ANKYLOGLOSSIA A.K.A. TONGUE TIE

- Congenital
- Lingual frenulum tethers the tongue’s tip to the floor mouth
- S/S
  - Difficulty sticking out the tongue past the lower front teeth
  - Inability to lift tongue to upper teeth and palate
  - Tongue appears notched or heart shaped when stuck out
LEUKOPLAKIA/ERYTHROPLAKIA

TORI

- Genetic
- Not excised unless there is food trapping
- May reoccur after excision
INTRA-ORAL ASSESSMENT: LAP AROUND THE GUMS

PYOGENIC GRANULOMA

Tab Two: Conducting an Oral Screening Exam Using the “4L’s”
**GINGIVITIS**

- Local inflammation
  - Aggravated by plaque build up on teeth
  - Causes gingiva to swell and bleed

- Common in pregnancy
  - 60-75% of pregnant women

**PERIODONTITIS**

- Gingivitis progresses to periodontitis
- Gingivitis is reversible
- Bone loss due to Periodontitis is irreversible
- Severe periodontitis may result in tooth loss

Example of Severe Periodontitis
ABSCESS

- Palpable as a fluctuant mass
- May be purulent