3. General Cautions Relating to the Oral-Peripheral Examination

a. Use your initial impressions of the child’s speech and facial characteristics to guide your examination.

b. Remember that one facial or oral abnormality may be associated with others.

c. If you suspect an abnormality in structure or function you may want to get a second opinion from a more experienced SLP or an SLP who specializes in craniofacial or motor-speech disorders before initiating referrals to other professionals.

d. Remember that in the case of most “special” conditions, it is not your role to diagnose the condition; rather it is your responsibility to make appropriate referrals.

e. Remember that in Canada you cannot usually refer directly to a specialist; be sensitive in your approach to the family doctor or referring physician.

f. Be sensitive about how you present your results to parents, especially when you are recommending referrals to other professionals. The parents have the right to refuse the referral.

g. An oral-peripheral examination is at least as important for your young patients as for your older patients.
Oral-Peripheral Examination

- Oral and Facial Structure
  - Face
  - Lips
  - Teeth
  - Hard palate
  - Soft palate
  - Tongue

When you perform an oral-peripheral examination what are you looking for when you examine each of the following structures?

a. Facial Characteristics:
   overall expression and appearance, size, shape and overall symmetry of the head and facial structures
b. Teeth:
   maxillary central incisors should extend just slightly over the mandibular central incisors; the lower canine tooth should be half-way between the upper lateral incisor and the upper canine tooth
c. Palatal and Pharyngeal Area:
   any structural deviations of the soft or hard palate or uvula; abnormal variations in colour; symmetrical raising of the velum when saying “ah”; obstructions of the air passage such as overly enlarged tonsils;
d. Tongue:
   size, presence of obvious lesions or growths, fasciculations (quivering), or atrophy of one or both sides of the tongue, length of the lingual frenum; speed, strength, and range of motion in lateral and horizontal directions; ability to perform coordinated, voluntary sequences of tongue movements.
The “normal” face is “five eyes wide”:
1st fifth (tip of left ear to outside corner of left eye); 2nd fifth (eye); 3rd fifth (between inside corners of the two eyes); 4th fifth (right eye); 5th fifth (outside corner of right eye to tip of right ear).

The “normal” face can be divided into thirds horizontally:
Top third (top of head to eyebrows); middle third (eyebrows to bottom of nose); bottom third (bottom of nose to bottom of chin).

The esthetic line: the tip of the nose, lips, and chin should fall along the same line.

Characteristic features of fetal alcohol syndrome:
Short palpebral fissures (the openings of the eyes on the face, i.e., the area between the eye lids)
Microcephaly (head circumference < the 3rd centile for age)
Long smooth philtrum
Thin upper lip
High arched eyebrows
Ptosis
Flat midface
Short, upturned nose

Normal Occlusion of the Teeth

maxillary central incisors should extend just slightly over the mandibular central incisors; the lower canine tooth should be half-way between the upper lateral incisor and the upper canine tooth
Overbites can occur when the upper jaw or teeth project ahead of the lower jaw/teeth. Buck teeth can be corrected using different appliances depending in the severity of the case.
Class III cases, like Class II, are often originated from genetics. Class III conditions are commonly referred to as underbites. This is the opposite of an overbite. In this case, the lower jaw and teeth are pushed out in front of the upper jaw. The lower jaw appears to be excessively large, but often the upper jaw is underdeveloped.
Cross Bite

Condition in which the cusps of the tooth in one arch exceed the cusps of the tooth in the opposing arch, buccally or lingually.

http://www.valleybraces.com/braces_crossbite.htm
Openbite occurs when front teeth do not overlap. A lack of vertical overlap of the incisor teeth can usually be traced to jaw disharmony or persistently bad habits. Digit sucking and posturing of the tongue between the front teeth should be avoided and discouraged at all costs. An openbite may also be caused by excessive vertical growth of one or both jaws.
What Are Adenoids?
The **adenoids** (say: add-eh-noids) are lumpy clusters of spongy tissue that sit in the back of the nose above the roof the mouth. They sit high on each side of the throat behind the nose and the roof of the mouth. Adenoids get bigger after a kid is born and usually stop growing by the time a kid is between the ages of 3 and 7. Although you can easily see your tonsils by standing in front of a mirror and opening your mouth wide, you can’t see your adenoids this way. A **doctor** has to use a small mirror or a special scope to get a peek at your adenoids. Sometimes a doctor may want you to get an X-ray of the adenoid area.

http://kidshealth.org/kid/health_problems/teeth/adenoids.html
Bifid Uvula

**Bifid uvula:** The uvula, the little V-shaped fleshy mass hanging from the back of the soft palate, is cleft or split. Cleft uvula is a common minor anomaly occurring in about 1% of whites and 10% of Native Americans. Persons with a cleft uvula should not have their adenoids removed because, without the adenoids, they cannot achieve proper closure between the soft palate and pharynx while speaking and develop hypernasal speech.

I went to an ear, nose and throat doctor to discuss surgery for my four-year-old's protruding ears, and I mentioned that his speech isn't good. The doctor said there was a deformity in his uvula. It looks more like a "w" than a "u". He said some children are born with cleft palate or cleft lip and that this was somewhat similar. Could you please explain this? How will this affect him in the future? Should this have been determined when he was an infant? What could have been done earlier?

What you are describing is a "bifid uvula." "Bifid" means divided or forked. Bifid uvula is not a significant problem in and of itself; it is mostly significant for its association with a dysfunctional palate.

Before birth, the palate begins as two divided shelves of tissue. The shelves grow toward each other and eventually join in the midline. ("Midline" refers to an imaginary line that divides our bodies into left and right halves.) There is muscle within these shelves; when the shelves join, the muscles interdigitate (interlock).

If the shelves fail to join, the child is born with a cleft palate. When the shelves join but the muscles fail to interdigitate, the child is said to have a submucous cleft palate. In other words, below the mucous membrane, the muscular portion of the palate is still separated. Frequently, bifid uvula is a clue to the presence of a submucous cleft palate.

Interdigitation of the muscle is important to the palate's function, so submucous cleft palates are inefficient compared with normal palates. This can cause problems with speech, swallowing and eustachian tube function (leading to frequent ear infections).

Should this have been noticed at birth? Not necessarily; bifid uvula can be a difficult to spot in a newborn, and often submucous cleft palate can be detected only by careful palpation (by feeling it with the hand). As the infant grows into a toddler, these problems are easier to detect. It is not uncommon for bifid uvula and/or submucous cleft palate to go unnoticed until the toddler years.

If it had been detected, could anything have been done about it? One can operate on a cleft palate, but submucous cleft palate cannot be repaired. It is certainly useful to know that one's child has this condition. (By the way, bifid uvula is not always associated with submucous cleft palate. Your son needs to be appropriately examined to determine this.) Armed with this knowledge, you would be more likely to seek early intervention for problems with speech, swallowing and ear infections.

One last comment: You also mentioned that your son has protruding ears. If he has protruding ears and a bifid uvula, there is a chance that he has a congenital (inborn) syndrome. There are hundreds of syndromes that involve subtle malformations of facial and oral anatomy. In many of these syndromes, there may be subtle abnormalities of other organs. For example, one might find kidney malformations together with the ear/uvula malformations you have described. These other abnormalities could have great significance to his health, now or in the future. For this reason, I recommend that you take your son to a medical geneticist for a thorough evaluation.

http://www.ivillagehealth.com/experts/ent/qas/0,,242110_175744-4,00.html
Douglas Hoffman
Cleft Palate
Tongue atrophy (left photo) and normal tongue (right photo).
Oral Function

- Range of motion
- Symmetry
- Speed
- Precision
- Strength
- Coordination

I strongly encourage you to check out the website:
http://icarus.med.utoronto.ca/NeuroExam/
Quickie Oral Function Exam

Again, don’t forget to start with the face!
This figure showing a child with Mobius syndrome was taken from the following paper:
Quickie Oral Function Exam

- Lips
  - Smile
  - Protrude lips
  - Alternate retract and protrude lips
Quickie Oral Function Exam

- **Tongue**
  - Protrude tongue
  - Tongue tip to corners of mouth
  - Tongue tip to top and then bottom lip
  - Rapid side to side
  - Tongue tip to alveolar ridge
Quickie Oral Function Exam

- Velum
  - Say ‘ah’
  - (observe symmetrical raising of the velum)
Quickie Oral Function Exam

- Diadochokinetic Rate
  - Repeat ‘papapapa’
  - Repeat ‘tatatatata’
  - Repeat ‘kakakaka’

- Alternate Motion Rate
  - Repeat ‘pataka’

Observe precision and measure rate.
Note that ‘patycake’ is not the same thing. Often when the child cannot do ‘pataka’ the clinician requests ‘pattycake’ and is satisfied when the child is successful with the real word. However the ability to produced well practice words is not at the same thing as planning and executing a new utterance.