## Diagnosing Children Ties

**Lip Tie Definition:** A restrictive attachment of the upper lip to the maxillary gingival tissue. It presents as an unusually short, thick or tight band of tissue (labial frenulum) that tethers the upper lip to the maxillary gingival tissue.

## Classifications of Lip Ties:



Kotlow Class I Frenulum shows no restrictive attachment of the upper lip to the gingival tissue.



Kotlow Class II Frenulum inserting at the zone of the free and attached gingival tissue.



Kotlow Class III Frenulum inserting at the zone between the central incisors.



Kotlow Class IV Frenulum inserting at the zone extending into the anterior palatal area.

**Tongue Tie Definition**: A condition present at birth that restricts the tongue's range of motion. It presents as an unusually short, thick or tight band of tissue (lingual frenulum) tethering the bottom of the tongue to the floor of the mouth.

Classifications of Tongue Ties:



Kotlow Class I

- The classic heartshaped tongue
- The tie inserts into the tip of the tongue
- Easiest tongue tie to diagnose



Kotlow Class II

- Considered an anterior tongue tie
- This tie inserts just behind .
   the tip of the tongue
- Heart-shaped tongue is not evident but the tie is clearly seen



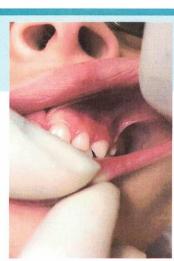
Kotlow Class III

- Considered a posterior tongue tie
  - The distinguishing factor between classes
    III and IV is that class III still has a thin
    membrane present



Kotlow Class IV

- No thin membrane is present
- · Tissue tends to be thicker
- The front and sides elevate, but the mid-tongue cannot
- Sub-mucosal, hidden or invisible tongue tie
- · Most commonly missed



**Buccal Tie definition**: An abnormal mucosal tether extending from the cheeks to the gingva.

- Perhaps the least well known and most uncommon among the tethered oral tissues
- Severe buccal ties can cause discomfort as the cheek lifts and pulls away from the gingiva
- May cause gingival recession and/or food entrapment leading to risk of gingivitis and cavities

Anterior Tongue Ties: Kotlow Types I & II

Posterior Tongue Ties: Kotlow Types III & IV

Classifications of Buccal Ties: There are no classifications assigned to buccal ties