# ECCOVISION SCREENING, WELLNESS EVALUATION, TESTING, APPLIANCE DELIVERY & FITTING

## ECCOVISION SCREENING - WELLNESS EVALUATION

### Baseline/Collapse CM #s (What to Look For)

- Baseline Test (breathing normally)
  - Mean
    - Men 3.2 cm
    - Women 2.8 cm
    - Anything less than these numbers could be an "at-risk" patient
  - Minimum
    - Both men & women 2.0 cm
    - Anything less than these numbers could be an "at-risk" patient
  - Collapse Test
    - Breathe normally
    - When the patient is ready, they long-slowly exhale until they have emptied all the air from their lungs
    - Have the patient raise their hand when complete
  - Minimum
    - Anyone (male or female) testing less than 1.86 cm, or more than 25% decrease is "at risk"

### Additional Points for Baseline/Collapse CM #s

### Contextualizing the Numbers

- Explain to patients that these numbers represent the size of their airway.
- Use simple analogies, like comparing the airway to a tube or tunnel, to make it more understandable.
- *"Think of your airway as a tunnel. The 'cm' number is the width of that tunnel. A narrower tunnel can mean more difficulty for the air to pass through."*

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# ECCOVISION SCREENING – WELLNESS EVALUATION

### Explaining Variability

- Make it clear that while these numbers are useful guidelines, there's variability in what's considered normal, and these numbers are just one part of a larger picture.
- *"While these numbers give us a good indication, everyone is different. We consider these alongside your symptoms and health history."*

### Risk Assessment

- Clarify that being "at risk" doesn't necessarily mean they have a disorder but indicates the need for further evaluation.
- *"Falling below these numbers suggests a potential risk, but it doesn't diagnose a condition outright. It signals us to investigate further."*
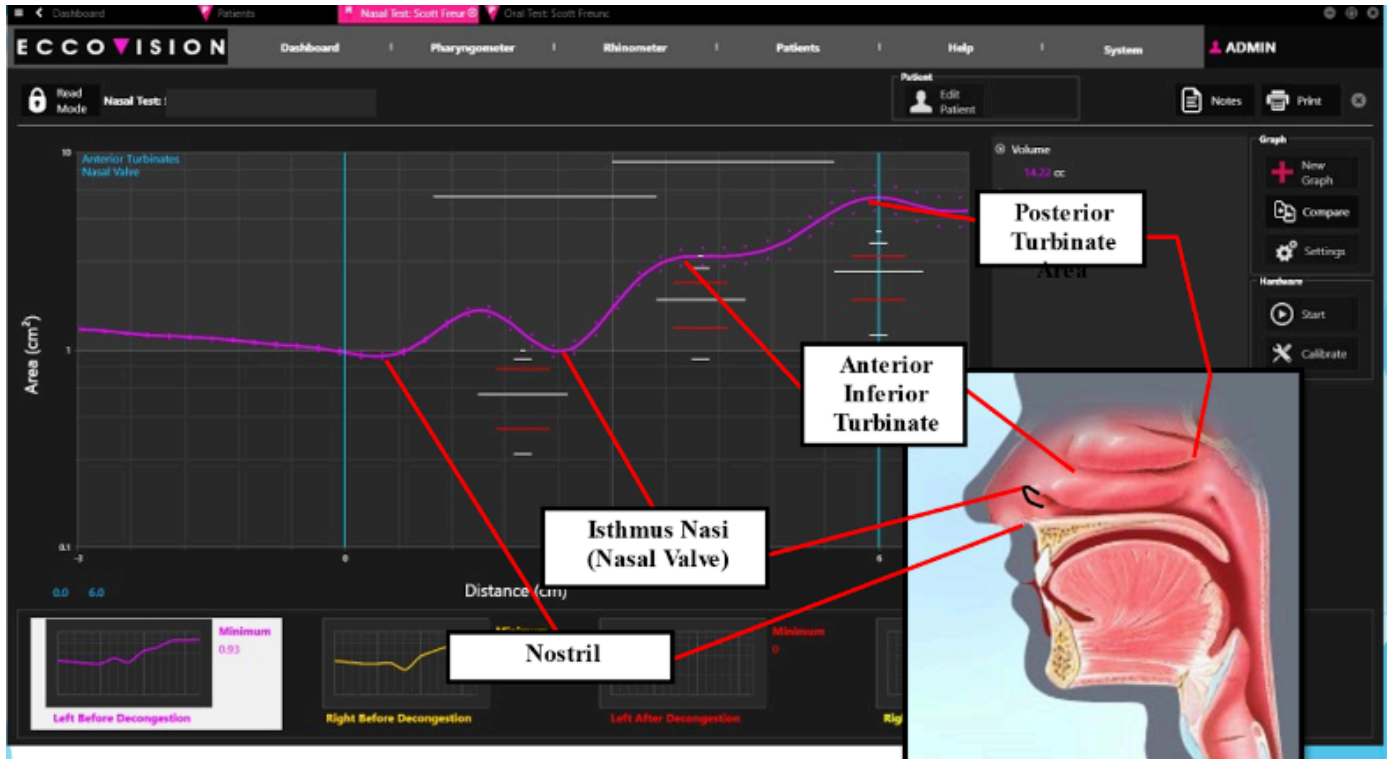
### Patient Reassurance

- If a patient's measurements indicate risk, reassure them about the next steps.
- *"If your measurements fall into the 'at risk' range, don't worry. We'll guide you through the next steps, which may include additional testing or consultations with a sleep specialist."*
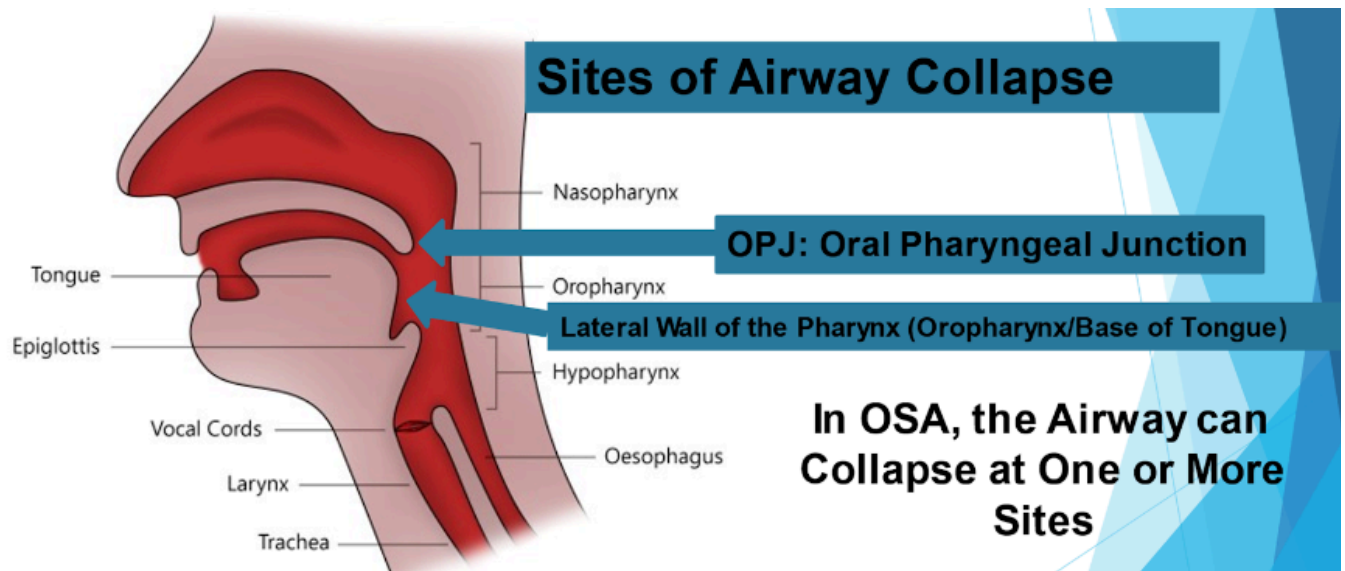
# READING A PHARYNGOMETER GRAPH

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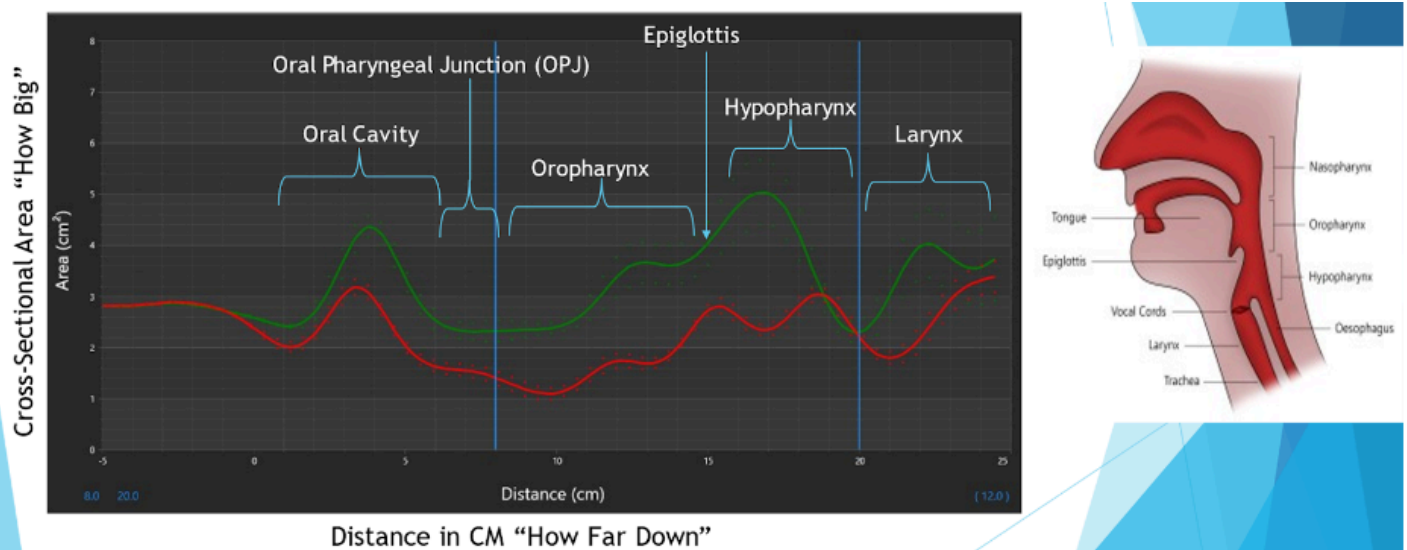
# RHINOMETRY LANDMARKS



# WHERE IN THE AIRWAY DO PATIENTS COLLAPSE?

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## Pharyngometer "At-Risk" Example

- If the Minimum in compare mode shows 55% then you would let the patient know that they lost 55% of their airway, (over half), and that a sleep study is needed to find out what is causing their airway to collapse like that.
- Any Minimum Decrease of 25% or greater means there is a potential concern for their airway and should be referred for a Sleep Study.

## ABNORMAL RHINOMETRY



## Rhinometer Obstruction Example

- If there is an obstruction in the nasal passages, you will see the lines reach a certain point, and then a sharp drop down indicating a blockage.
- If the patient has a deviated septum, you will see the lines on the graph start off separate, and then cross towards the posterior turbinate.
- Any readings below the Diamond of "Within Normal Limits" warrants further discussion and possible ENT referral.

# CONSULTATION EXAM & APPLIANCE IMPRESSIONS VISIT (APPROX 40 MINS)

### Schedule the Consultation and Sleep Impressions Appointment

- Software will notify you when ready to schedule in the dental office for the next steps in treatment, which may include the fitting of an oral appliance.
- Schedule an appointment for the patient to visit the dental office for further examination and clinical consultation.

### Dental Examination

- During the appointment, perform a comprehensive dental exam to assess oral health status and suitability for an oral appliance.
- Document any dental conditions that may influence the appliance fitting or therapy.

### Clinical Records Collection

- Take impressions or digital scans of the patient's teeth to create a custom oral appliance.
- When scanning, capture 2-3mm of gingiva, palate as far back as the first molar and the hamular notch.
- Use the jig and bite fork to scan for the appropriate bite.

### Airway Metrics Bite Jig Testing for Therapeutic Position

Using Pharyngometry with a mandibular repositioning jig in place lets us see in real time how the airway responds to multiple vertical and protrusive positions and identify an ideal bite position for the appliance.
*See detailed description in the guide below for these 3 steps:*

- Baseline and Collapse Test
- Conduct fresh Baseline and Collapse Tests to establish current airway metrics.

### Scheduling Appliance Delivery

- Schedule a follow-up appointment for the delivery and fitting of the oral appliance once it is ready.
- Inform the patient about what to expect during the appliance delivery

### Communication with Lab

- Send scans with bite and detailed instructions, including the chosen vertical and horizontal positions, to your chosen dental lab.
- Clearly communicate the desired appliance position to the lab technicians to ensure precise fabrication.
- Clear communication with the dental lab is crucial. Provide detailed notes to ensure the appliance is crafted to the exact specifications.

# GUIDE TO USING AIRWAY METRICS JIGS

**Preparing for the Test:**

- **Review Previous Test**
  - Begin by reviewing the patient's original test from their Initial Airway Screening Appointment.

- **Pharyngometer Setup**
  - Prepare the Pharyngometer for the Bite Records Test.
  - Create a new test in the system, selecting "Bite Records" as the type.

- **Save Test**
  - Make sure you SAVE every patient's test BEFORE starting a new one!
  - This is on the lower left part of the screen under "save".

**Using Airway Metrics System:**

- The 16-piece system: the 16 pieces in the cassette are the primary components beginning with the 15 Mandibular Positioning Simulators (MPS).
- The rows rise in sequence beginning with 4, 6, 8, 10, and 12 mm vertical (V) first row.
- The three columns provide A-P (H) positions beginning slightly anterior of centric to + 7mm protrusive (H).
- Vertical positioning ranges from 4mm to 12 mm V in 2 mm increments.

**Titration Screens and Airway Metric Jigs:**

- Utilize the Titration Screens. Name each screen as the specific Jig being used.
- Example: "8V E/E" or "8V 2H".
- To rename a Titration screen for a specific jig position, double click on "Titration", rename, and press ENTER.
- Avoid using the touch screen to save to prevent freezing.
- Place a jig in the patient's mouth, ensuring comfort.
- Use a mouthpiece WITHOUT a tongue depressor for the Titration Test since you will be performing the Collapse Procedure.
- Instruct the patient to place the tip of their tongue under the tip of the jig for consistency.

**Vertical Position Measurement:**

- Begin by measuring the vertical position with the jig in place, noting that most appliances can be adjusted horizontally but not vertically.
- Common starting points are 6V E/E (Edge to Edge), 8V E/E, or 10V E/E.
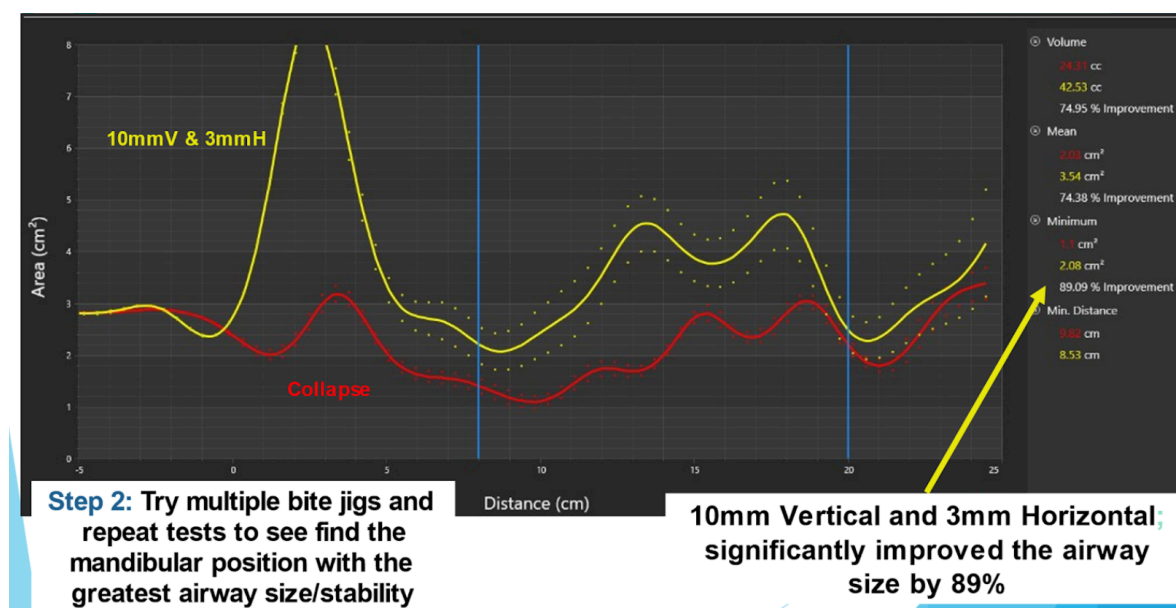- 4mm Vertical is not very common unless you are treating UARS.

www.apzme.com
www.sleepgs.com
www.millenniumsleeplab.com
www.sleepimpressions.com

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**Horizontal Position Measurement:**

- After determining the vertical, measure the horizontal position.
- Start with standard positions such as 6V 2H or 8V 3H and adjust as necessary.

**Titration Screens and Airway Metric Jigs:**

- The goal is to find a mandibular position with the jig that improves the Minimum airway size significantly (by at least 1.0 cm²) or achieves a reading greater than 1.86 cm².
- If you can increase the Minimum Cross-Sectional Area (MCA) by 1.0 cm2, the patient is 35X less likely to have OSA.
- Titrate with small 1mm adjustments in vertical or horizontal alignment, looking for improvements in airway size.
- Remember, a little change can be beneficial, but too much can have adverse effects.

## NEW TREATMENT POSITION: WHAT WE DID TO FIX WHAT WAS WRONG



Step 2: Try multiple bite jigs and repeat tests to see find the mandibular position with the greatest airway size/stability

10mm Vertical and 3mm Horizontal significantly improved the airway size by 89%

**Optimal Position Confirmation:**

- Once a promising position is found, confirm the comfort and airway improvement with the patient before finalizing the bite registration.
- "We've identified a position that improves your airway size, and we'll use this information to craft an oral appliance tailored just for you. This custom fit is key to ensuring you get a restful night's sleep."

## Bite Registration / Recording the Bite:

- Attach the Airway Metrics Scanning Bite Fork and Handle to the jig.
- Insert into the patient's mouth a couple of times so your patient knows exactly what to expect.
- Place a small amount of Bite Paste on the posterior Pads for stability.
- Position in the patient's mouth.
- Remove the handle, scan your bite.
- "I'm going to take an impression of your bite in this new position. It's a quick process and helps us create an appliance that fits you perfectly. Remember to keep your tongue in the right place as we discussed, this helps us get the most accurate reading."
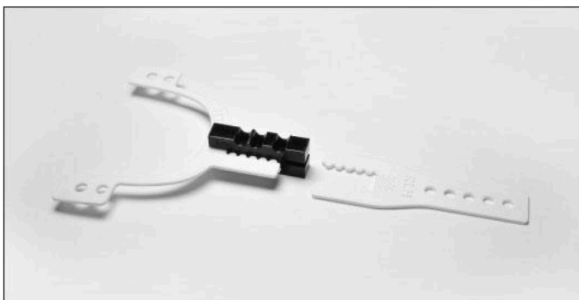


**Avoid autoclaving jigs,** as it may remove the white numbering; use CaviWipes for cleaning.

### DR. JOHN CAROLLO (SLEEP DENTIST) ADVICE:

- Establish the correct bite jig.
- Put the jig in the scanning bite fork and putty in the posterior space,
- Have the patient close their mouth and now have a tri-pod stable opening for the 8mm vertical/3mm horizontal jig chosen for this patient.
- Put putty alongside the jig in the anterior teeth to help the scanning tip see the upper and lower arches.
- "This is my technique, and it works seamlessly".

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