



**Airway Center**

*Breathe Easy*

Why jaw development is  
**THE KEY** to proper  
orthodontic treatment

[AirwayCenter.com](http://AirwayCenter.com)

# What is the Tanner Airway Appliance?



The Tanner Airway Appliance is a removable device that helps develop the jaws up and forward, used on patients 2-75 years old. With 6-12 months of treatment, your child will have **space for their adult teeth to come in, a healthy jaw position, an optimal airway,** and will be set up for a **lifetime of healthy sleep.**



There are several stages of treatment which are customized based off of the patient's individual needs.



**But hasn't crowding and crooked teeth always been a human problem?**

**Quite simply, no.**

100 years ago and beyond there was virtually no crowding, impacted wisdom teeth or need for extractions. Instead we had large, wide and fully-developed jaws and naturally straight teeth.



**Well then why?**

Prior to processed and industrialized sugary, soft foods we chewed tougher, whole foods. This promoted proper jaw development in both the upper and lower jaws.



**And the fix?**

Traditional orthodontics would have employed **extractions, retractive headgear** and other possibly harmful treatments to simply fix the aesthetics.

**We offer a different solution...**

# How does the Tanner Airway Appliance Work?

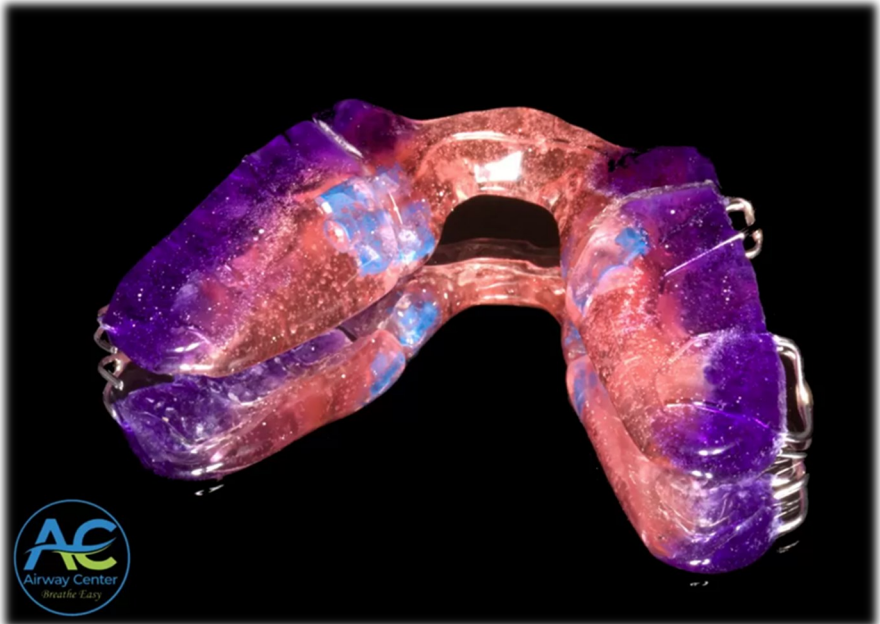
Slow and continuous pressure on the front of the palate stimulates forward bone growth of the upper jaw.



As the upper jaw grows forward the lower jaw follows, developing a healthy jaw position for optimal airway, TMJ, and teeth space.

The smooth biting surface created by the appliance allows free movement of the lower jaw. It then has the ability to move and grow forward into a healthy jaw position for optimal airway, TMJ and teeth space.

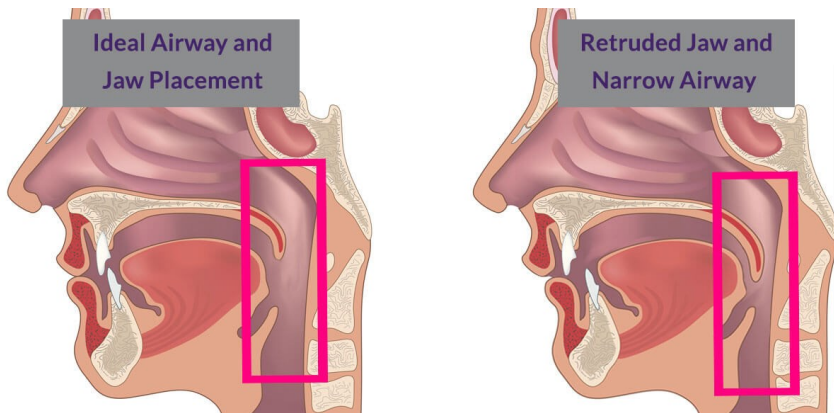
Each Tanner Airway Appliance is custom designed to achieve the patient's and doctor's goals for treatment.





Call us today at 844.239.1444

## Breathe Better, Sleep Better, Smile Better with help from the Airway Center!

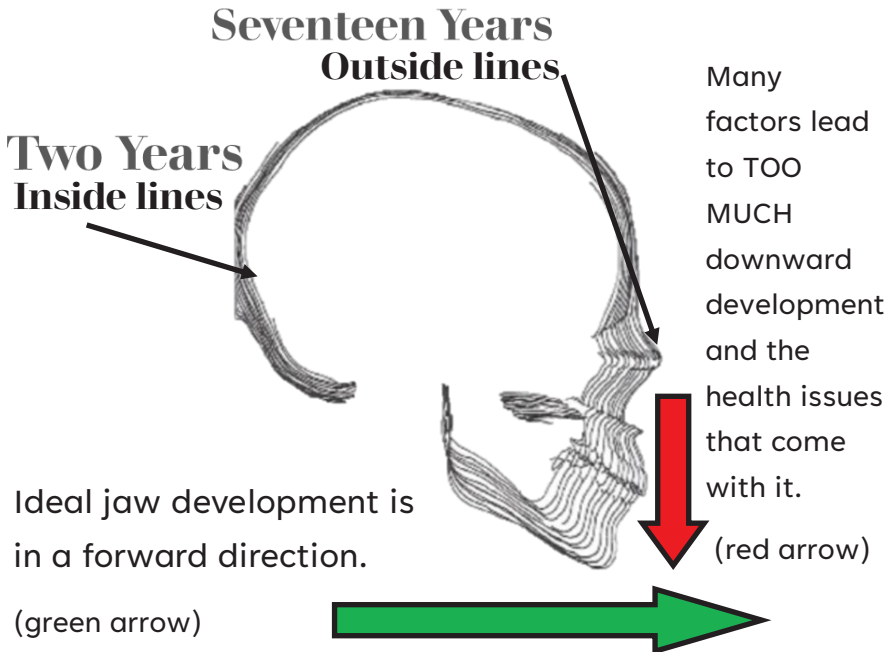


**Airway Orthodontics** is not just about the **teeth**. It is about helping the jaws and face grow to their full genetic potential and allowing airway spaces to open to full size and function at their best. There are so many aspects of our environment which can determine how we grow and develop.

**60% OF FACIAL GROWTH TAKES PLACE DURING THE FIRST 4 YEARS OF LIFE AND IS 90% COMPLETE BY THE AGE OF 12**

Conventional orthodontic wisdom has recommended that a child first have an orthodontic evaluation at age 7, but **WAIT** to treat until age 12. **THAT IS TOO LATE!**

# Optimal Forward Growth Leads to Normal Breathing



From ages 2-17 the jaws naturally grow downward and forward. More downward growth will mean more crowded teeth and a smaller airway. More forward growth will mean more room for the teeth and a more developed airway. We help to grow and develop both the upper and lower jaws forward to make room for all the teeth and a more optimal airway.



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## Cardiologist discovered sleep apnea and pioneered treatments over 50 years!



In the 1970's a tracheotomy was used to bypass the tongue blocking the person's airway.



In the 1980's a CPAP, Continuous Positive Airway Pressure, was used to blow the tongue forward and keep the airway open. This was first used on older adults, then started being used on middle aged adults and children.

### Fast forward to the 2000's, the Father of Sleep Medicine determined:

“If we can make room for the tongue in the mouth, we may be able to eliminate the development of obstructive sleep apnea.”

-Dr. Christian Guilleminault, 2019

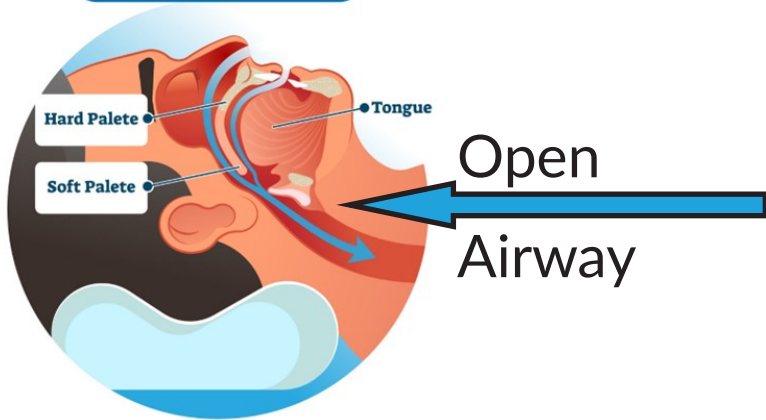
**And that is precisely what the Tanner Airway Appliance does; it makes room for the tongue in the mouth.**



## Normal Breathing

During sleep, air can travel freely to and from your lungs through your airways.

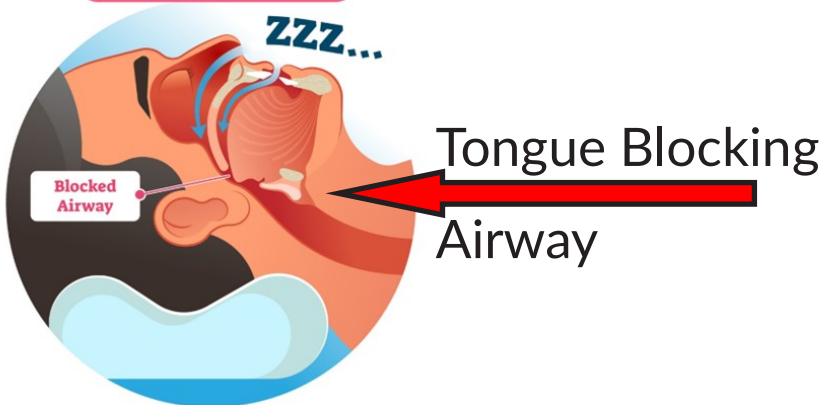
**NORMAL BREATHING** ✓



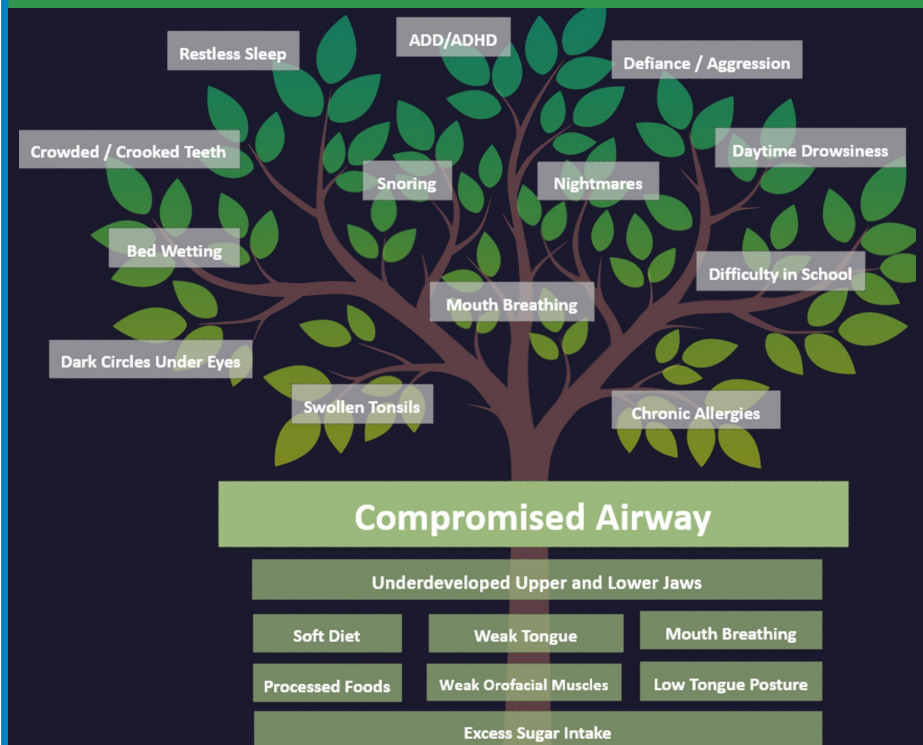
## Sleep Disordered Breathing

Your airway collapses, restricting air from traveling freely to your lungs and disturbing your sleep.

**SLEEP APNEA** ✗



# “Roots” of the Problem & “Growing” Complications



Do you know anyone with these health problems? Well, quite simply, the Airway Center can help kids and adults overcome these problems.

## Increasingly Common **Childhood** Health Issues

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- ADD/ADHD
- Bed Wetting
- Mouth Breathing
- Snoring
- Restless Sleep
- Nightmares/ Night Terrors
- Daytime Drowsiness
- Dark Circles Under the Eyes
- Swollen Tonsils/ Adenoids
- Chronic Allergies
- Crowded/Crooked Teeth

## Increasingly Common **Adult** Health Issues

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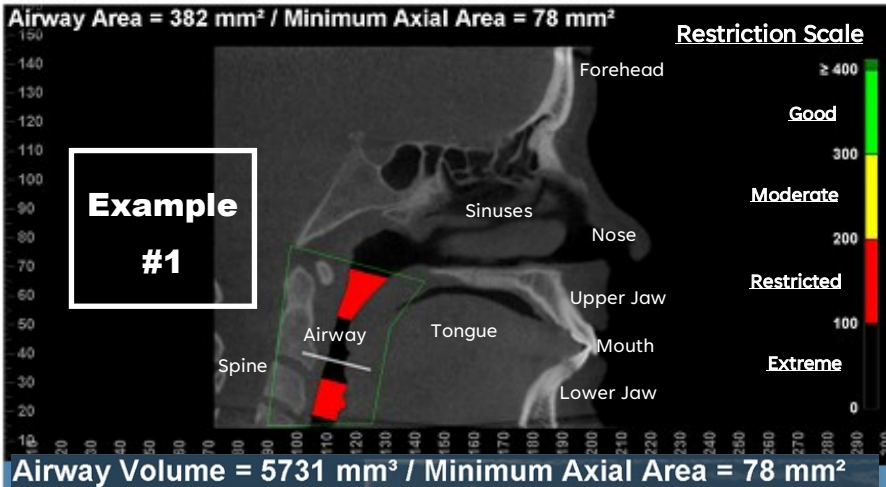
- ADD/ADHD
- Depression
- Anxiety
- Fibromyalgia
- Weight Gain
- Aggressive Behavior
- Teeth Grinding/ Clenching
- High Blood Pressure
- Alzheimer's and Dementia
- Chronic Fatigue
- Addiction



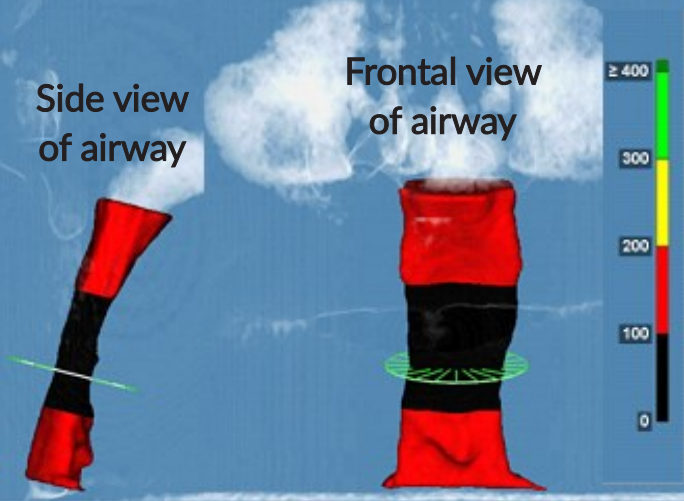
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# CT Scans—Two Different Airways

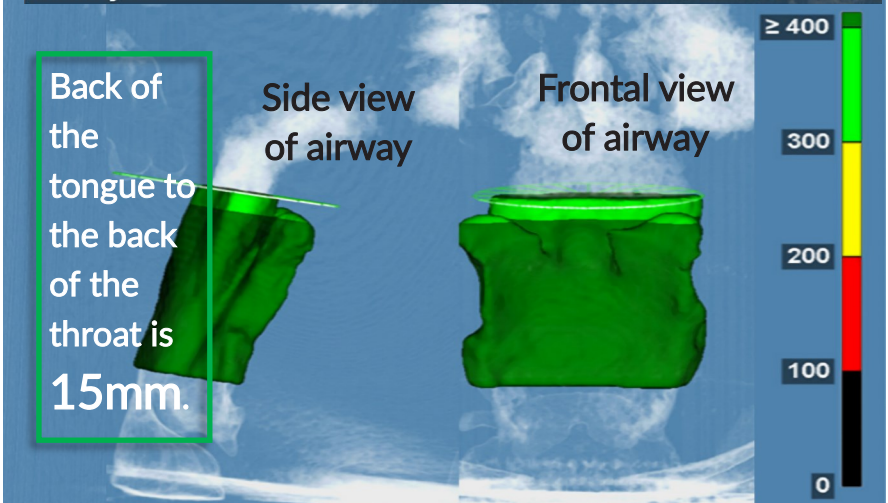
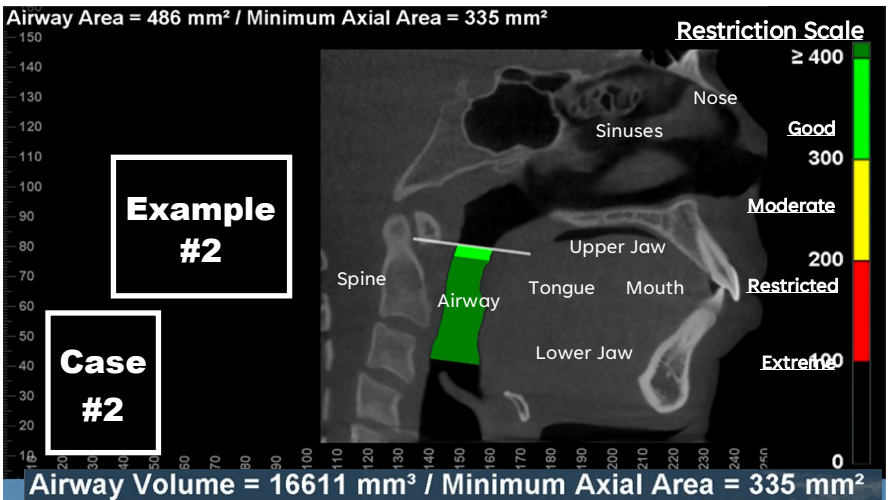
The red/black space below shows a severely restricted breathing area or airway. This compromised airway leads to disrupted sleep and other significant health issues.



Back of the tongue to the back of the throat is 6mm.



The green space is a healthy airway. Notice how much more breathing space there is. This is an optimum airway with plenty of room for healthy nasal breathing and a decreased risk of snoring and sleep disordered breathing.

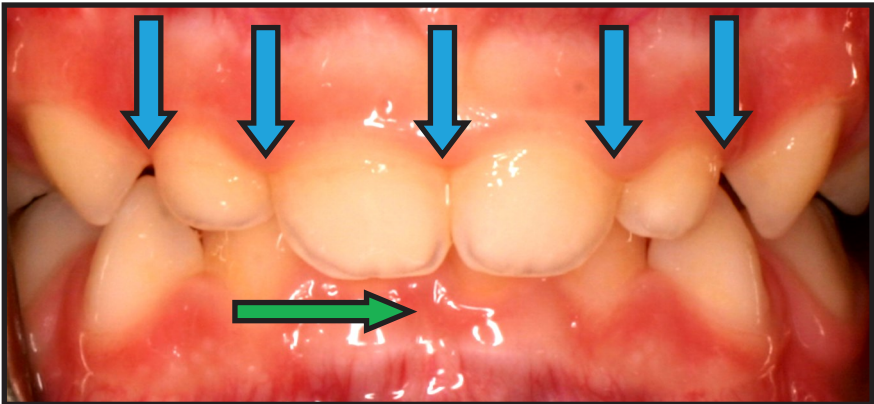
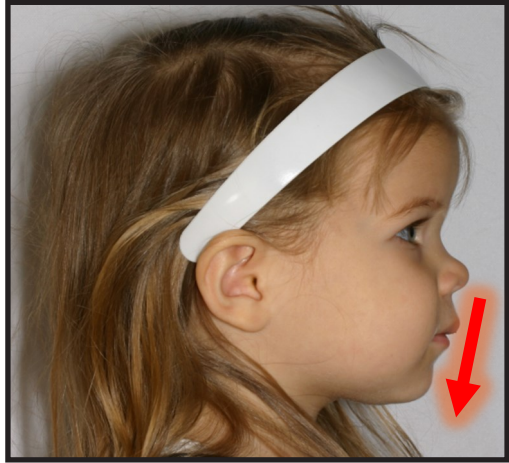


# Case 1

## Before

Age: 2 years, 4 mo.

- Downward growth pattern (red arrow)
- Lower jaw trapped behind upper
- Lack of space for adult teeth (blue arrows)
- Severe overbite is apparent, as the top teeth cover the bottom teeth (green arrow)
- Waking up crying twice every night, poor sleep quality

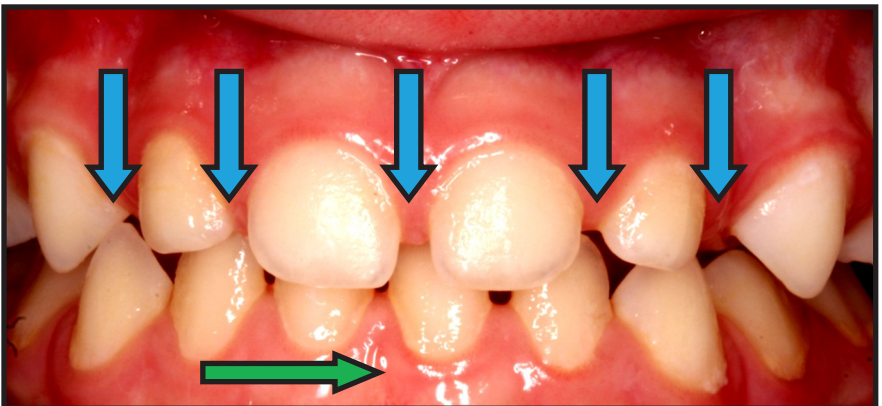
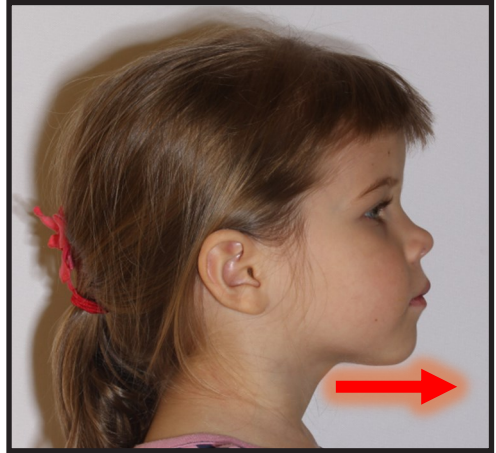


# Case 1

## After

Age: 4 years, 8 mo.

- Radically improved head posture
- Plenty of space for adult teeth (blue arrows)
- Overbite is improved (green arrow)
- Upper and lower jaw growth is now in a forward direction, not downward as before (red arrow)
- Improved quality of sleep, now sleeps through the night





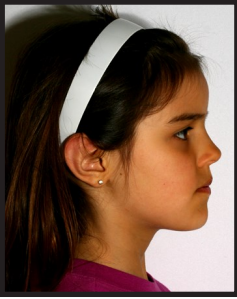
# Case 2

## Before Age: 6



- All baby teeth
- No space between baby teeth
- Permanent teeth will be crowded when they come in
- Restless sleep





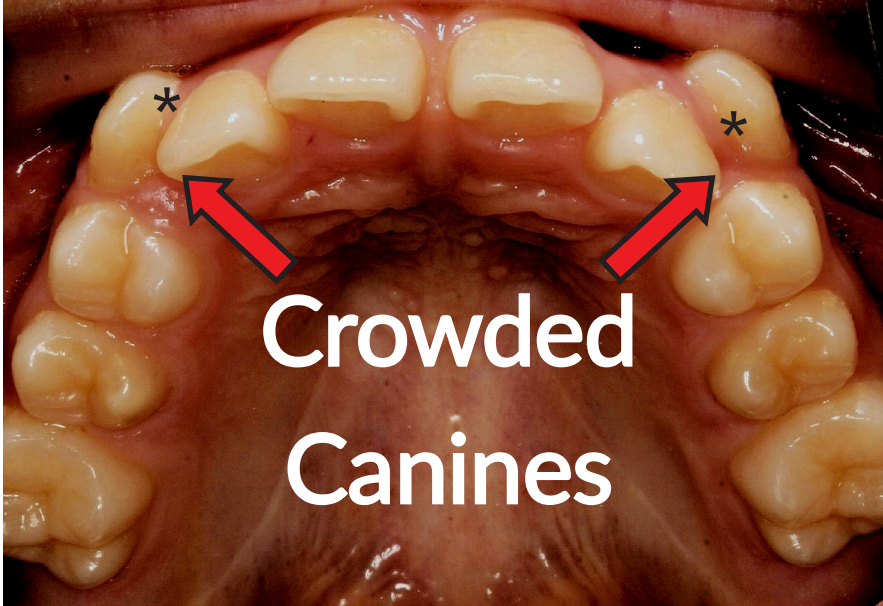
# Case 2

## After Age: 7



- Used Tanner Airway Appliance to create forward growth and the space needed for permanent teeth
- Created more space for the tongue
- Significant airway improvement

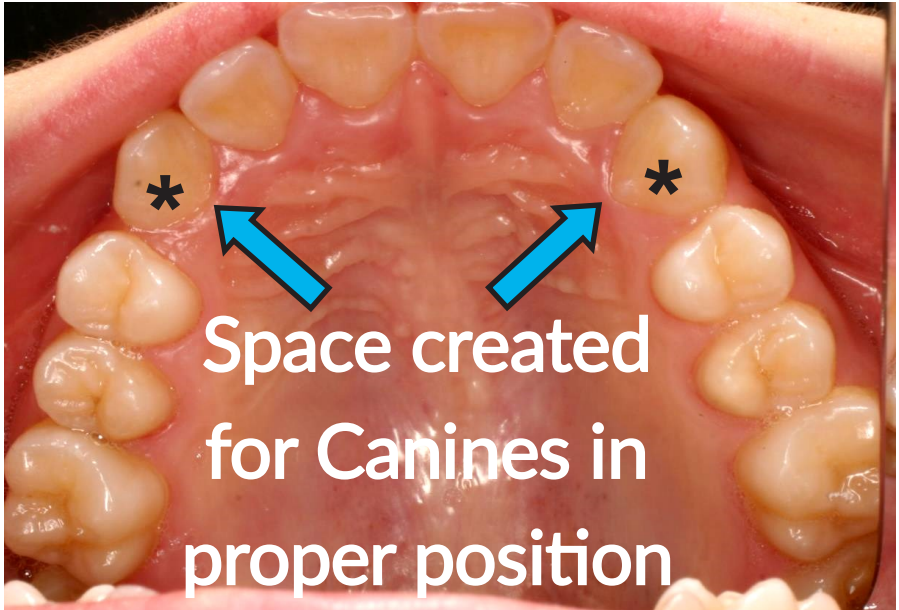
# Case 3 Before



**Age: 9 years, 2 months**

**History:** This young person was advised to have four permanent premolars removed to have the teeth straightened.

# Case 3 After

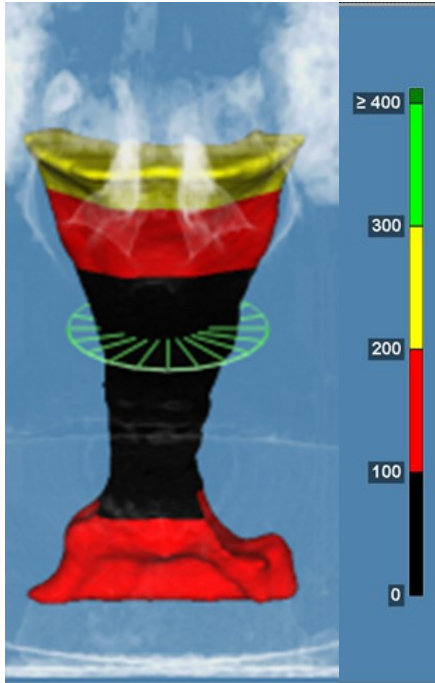


**Age: 10 years, 3 months**

**Treatment:** Instead we used the Tanner Airway Appliance for this forward growth. **No braces were used to achieve this.**

# Case 4

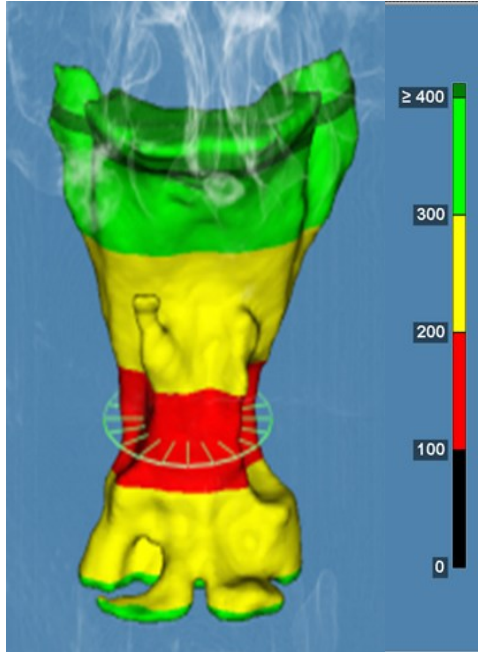
Before Age: 14



- Lower jaw set back
- Forward head posture
- Snoring
- Restless sleep
- Ringing in the ears
- Neck and back pain

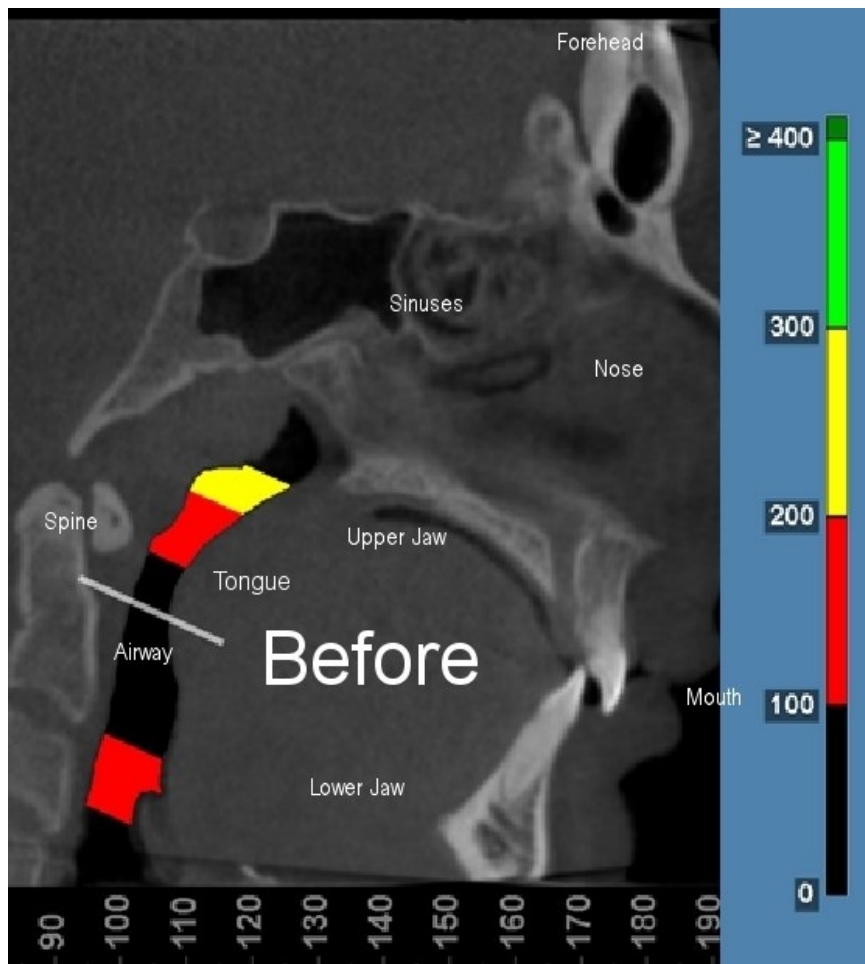
# Case 4

In Progress Age: 15



- Stronger lower jaw
- Improved posture
- Improved sleeping
- Decreased pain
- No ringing in ears
- No snoring
- Improved profile

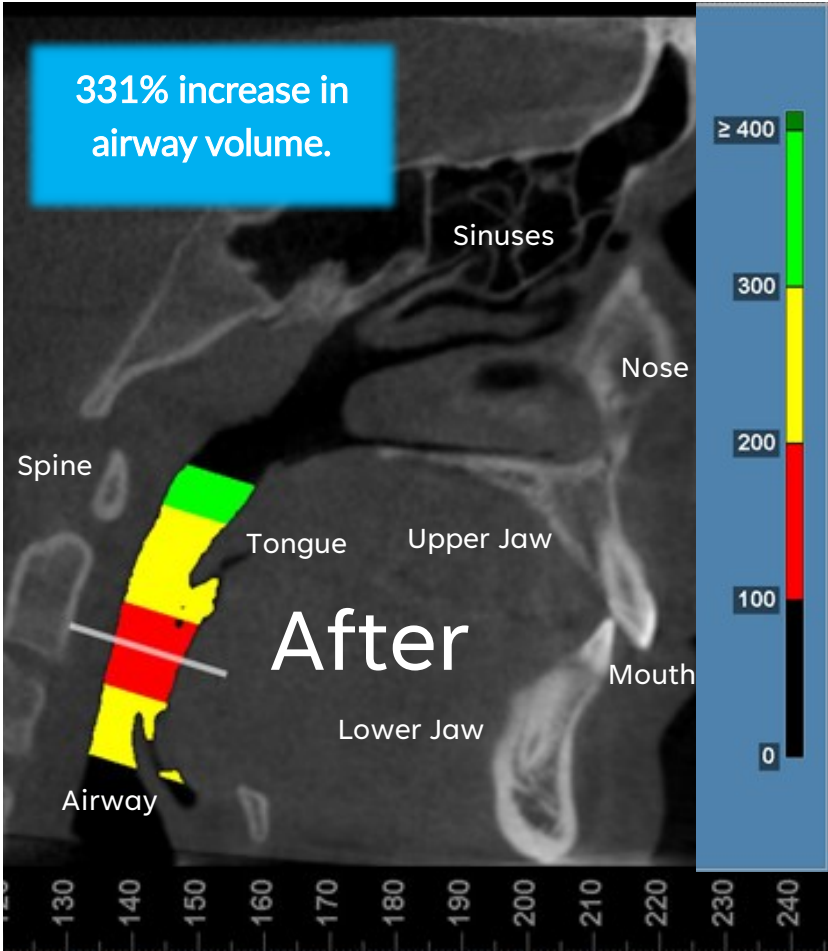
# Case 4 cont.



3-D model of airway above shows severe constriction indicated by the black area.

**Airway measurements:  
14.2mm x 5.6mm**

# Case 4 cont.



Green indicates optimal airway space.

Forward growth improved airway.

**Airway measurements:**

**24.3mm x 10.3mm**

# Case 5

## Before Age: 9



Note flat upper lip and weak lower jaw. Both of these issues are addressed by airway treatment as a natural byproduct of developing the jaws forward.



This photo shows the crooked teeth and a gummy smile. Both of these issues will be resolved as a result of treatment and a better smile will be the ultimate result.

You can see the downward growth pattern before treatment. It is obvious the patient has what is called mid-face deficiency.



# Case 5

## After Age: 11



Note full lips and aesthetic lower jaw. This is accomplished at the same time as creating more space for the airway and making room for adult teeth.



The after result is a noticeably improved and less gummy smile. Results of the Airway Center treatment not only improve health, but also benefit facial aesthetics and posture.

With the Tanner Airway Appliance we corrected the direction of growth. The jaws have significantly developed upward and forward.

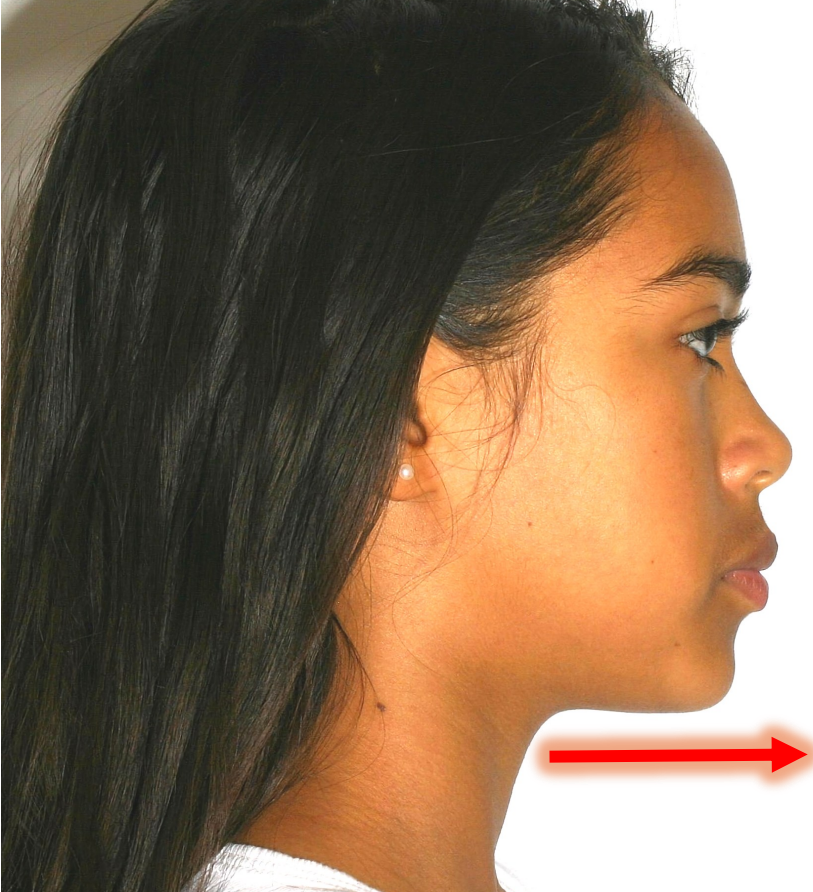
# Case 6 Age: 12



## After three years of traditional orthodontics:

- Still had impacted wisdom teeth, poor sleep quality, mouth breathing, problems focusing and daytime fatigue
- Lower jaw set back, forward head posture

# Case 6 Age: 13



## After airway orthodontics with Dr. Tanner:

- Plenty of room for all teeth including wisdom teeth, improved sleep, ceased mouth breathing and better airway
- Jaw forward and head posture corrected



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# Case 7 Age: 8



- Had a hard time waking up in the morning
- Teeth grinding, snoring and mouth breathing
- Forward head posture

# Case 7 17 Months Later



- Sleeping soundly through the night
- Stopped grinding, snoring and mouth breathing
- Radically improved head posture

# Case 8

## Before Treatment

- Pain in jaw when chewing
- Clicking and locking jaw
- Daily headaches
- Weekly migraines
- Ear pain and pressure
- Hearing loss and ringing in ears
- Grinding and clenching teeth
- Poor sleep and fatigue
- Heavy snoring
- Neck and back pain
- Difficulty swallowing
- Dizziness
- Sleepy when driving
- Restless legs
- Swollen glands
- Blurred vision
- Numbness in hands and fingers
- Dry mouth
- Broken teeth



This patient had a number of chronic and difficult health problems that resulted from the issues with her underdeveloped jaws. Treatment here was greatly impactful on her overall health.

# Case 8

## After Treatment



As self-reported her after treatment results are excellent. Apart from the weight loss, most of her issues were made much better by treatment, and her pain was significantly lessened.

- Lost 50 pounds
- Went from 5 cups of coffee a day to eliminating caffeine from her life entirely
- Wakes up feeling refreshed and alert, ready for the day
- Experiences a more level mood and an overall feeling of happiness throughout the day
- Stopped taking thyroid medication, levels are now all normal and her inflammation is considerably down
- Her daily headaches and migraines are down to once or twice a month
- As compared to before treatment, her self ratings:
  - ⇒ Jaw pain: 8 down to 1
  - ⇒ Neck pain: 10 down to 1
  - ⇒ Ear pain: 6 down to 0
  - ⇒ Fatigue: 10 down to 2

# Case 9



- Daytime fatigue
- Cracking and breaking teeth due to grinding
- Pain when chewing



# Case 9



- Wakes up refreshed
- Teeth no longer sore upon waking
- No pain when chewing

# Case 10

Before  
Treatment



- Downward Growth Pattern (Red arrow)
- Teeth Crowding (Green Arrow)
- Chin Set-Back
- Gummy Smile (Blue arrow)

# Case 10



Patient reports that since having treatment with the Tanner Airway Appliance that nightly snoring, enlarged tonsils, and morning headaches have improved.

# Case 10 cont.

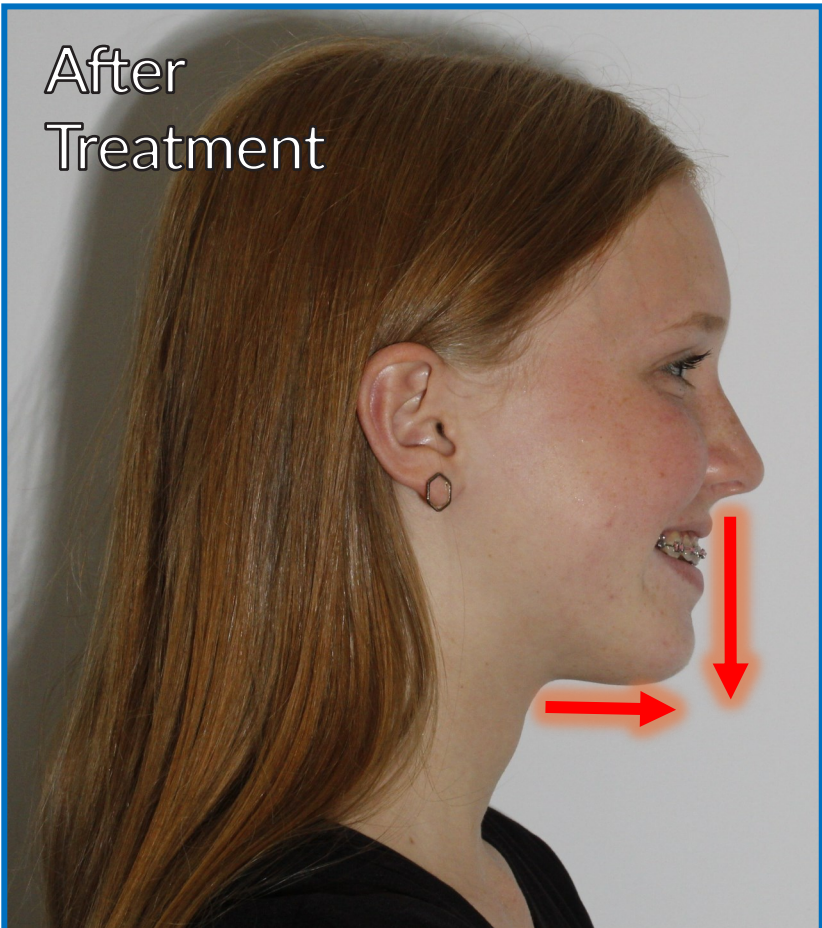
- Snoring Nightly
- Grinding Teeth
- Waking Up Several Times a Night
- Waking Up Feeling Unrefreshed

Before  
Treatment



# Case 10 cont.

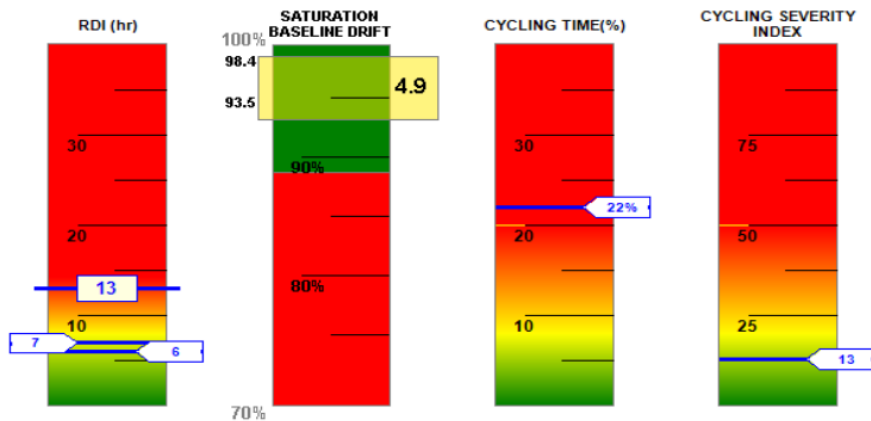
- Forward Growth Pattern
- Improved Airway
- Better Quality of Sleep
- Teeth Straightened



# Case 11

Before  
Treatment

Age: 10



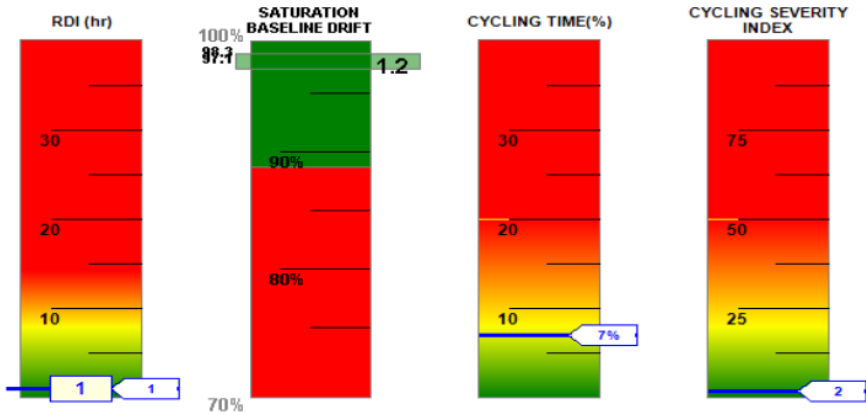
Patient reports poor quality of sleep. Sleep study shows patient experiencing **13** sleep disturbances per hour, which equates to a disturbance in his sleep, every **5** minutes, all night long.

# Case 11



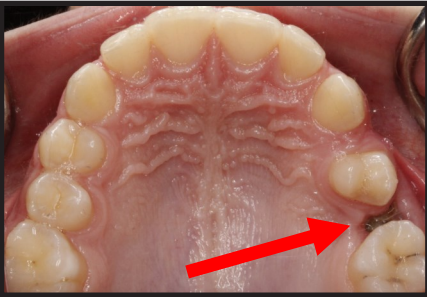
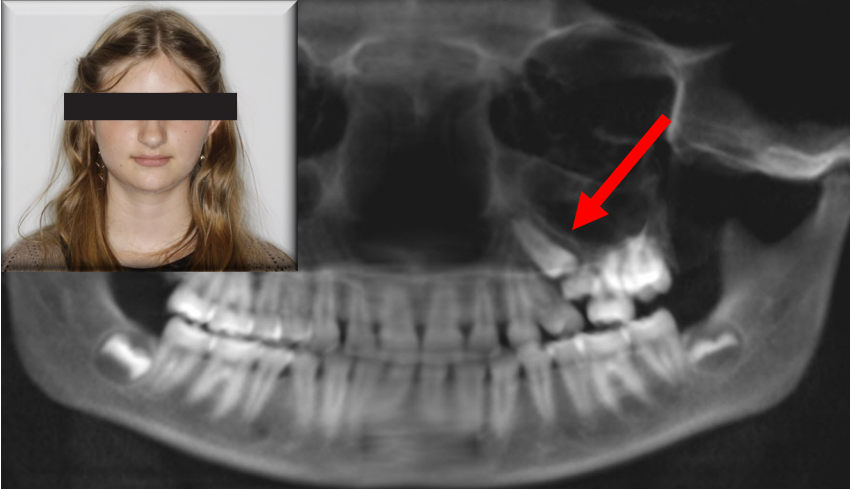
After  
Treatment

Age: 13

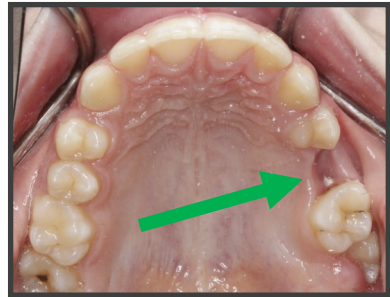


After treatment with the Tanner Airway Appliance, patient reports better quality of sleep, with more restful nights and energy in the morning. Sleep report shows patient experiencing only **one** sleep disturbance an hour, down from 13 an hour.

# Case 13



**Before**



**After**

Patient was told by Orthodontist that she would need:

- Teeth Extracted
- Braces for Four Years

Was treated with Tanner Airway Appliance and didn't require any teeth extracted or braces and treatment only took three months to complete!



# Case 14



Before starting treatment, patient had 5-10 Emergency Room trips a year due to severe asthma attacks.



## After Starting Treatment:

After starting treatment with the Tanner Airway Appliance, Mother reports that patient has not had an emergency room visit due to his asthma since, and that his breathing and sleeping have significantly improved.

# Case 15

## Before Treatment

- ⇒ Possible jaw surgery correction
- ⇒ Candidate for retractive head gear
- ⇒ Orthodontist may have permanent teeth removed before placing braces






# Case 15

## After Treatment

- Used Tanner Airway Appliance to create forward growth and the space needed for permanent teeth
- Underbite corrected

**NO EXTRACTIONS, HEADGEAR, SUR-  
GERY or BRACES Needed!**





**Better  
breathing  
is easier  
than you  
think.**

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