

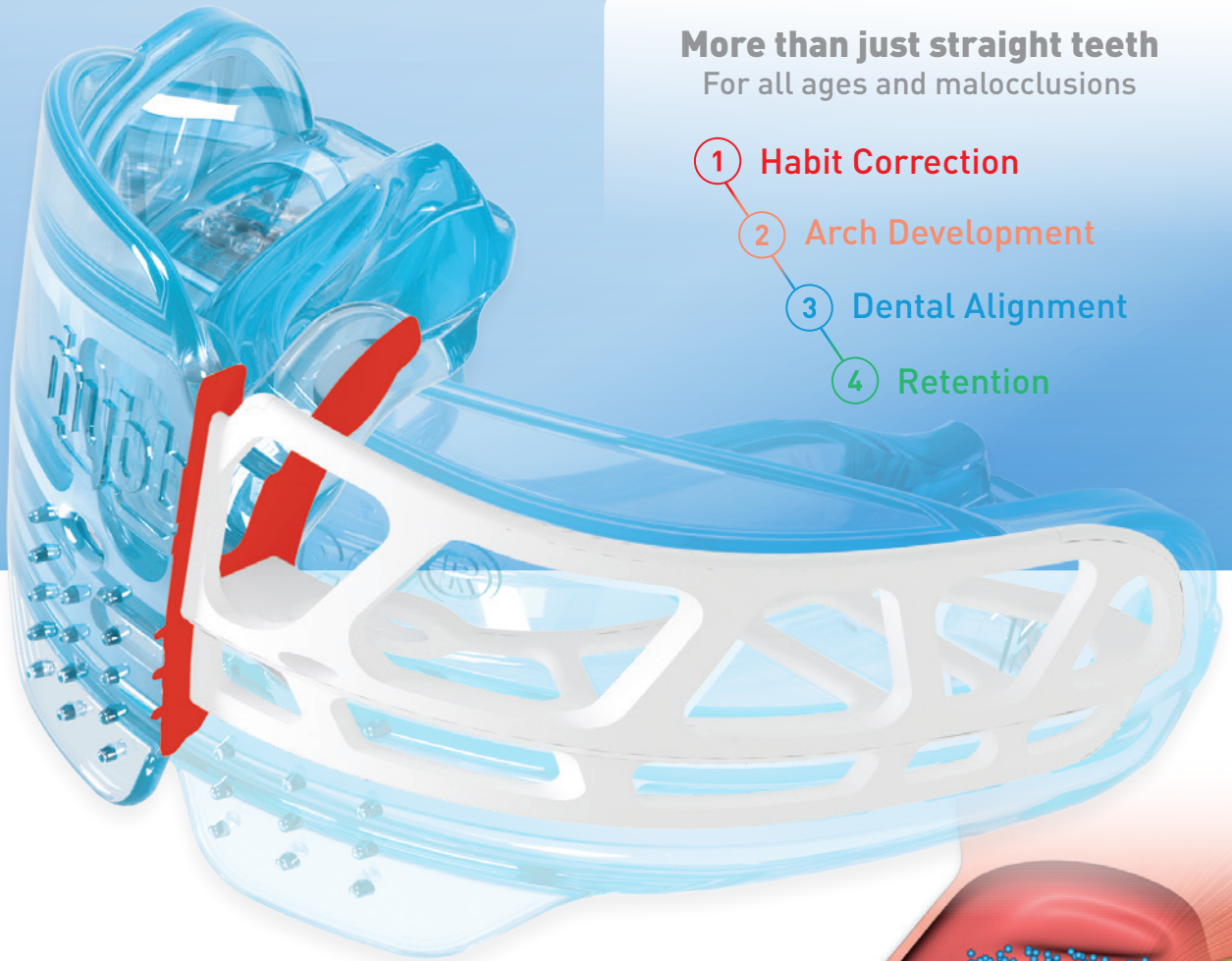
# myobrace®

## MYOFUNCTIONAL ORTHODONTICS

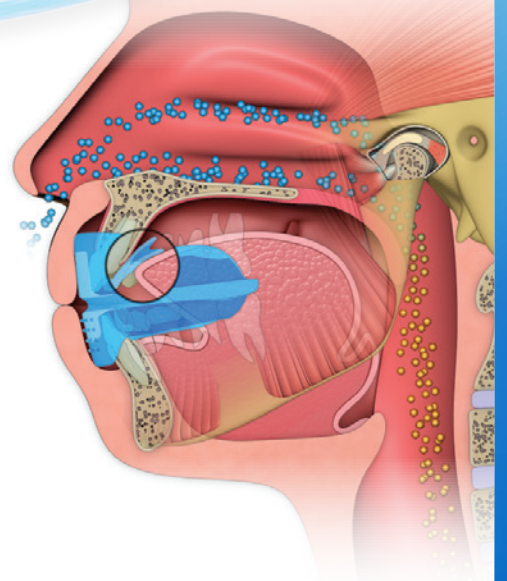


**More than just straight teeth**  
For all ages and malocclusions

- 1 Habit Correction
- 2 Arch Development
- 3 Dental Alignment
- 4 Retention



*The Myobrace® System by MRC is the world's leading myofunctional orthodontic treatment solution. It differs from all other orthodontic techniques by treating mouth breathing and aberrant oral habits first, then helps to develop the arch form and, finally, aligns the teeth into their natural position. This creates a state of balance with the oral musculature and optimises stability, often without the need for braces.*

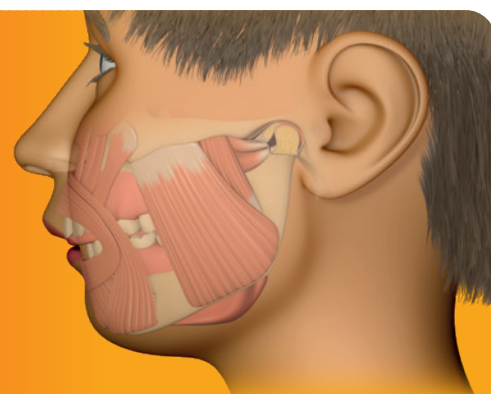


### APPLIANCE CATALOGUE

WORLDWIDE PATENTS, FOR MORE INFORMATION VISIT [MYORESEARCH.COM](http://MYORESEARCH.COM)



Every day, dental practitioners examine patients and are unaware that they can, and should, provide evaluation and treatment for breathing and myofunctional disorders. Not only for orthodontic reasons, but for the other numerous benefits of nasal breathing.



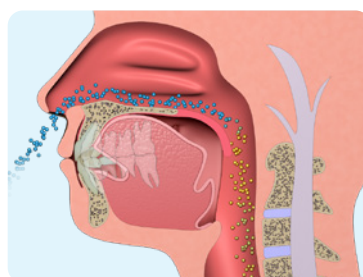
## What Causes Orthodontic Problems?

Malocclusion is now one of the most common oral health problems affecting the majority of people in the developed world<sup>1</sup>. This has resulted in unprecedented treatment demand, increasing the number of patients seeking more preventative alternatives to conventional braces. Many explain this high prevalence by assuming that malocclusion is primarily hereditary and unavoidable, but is this true?

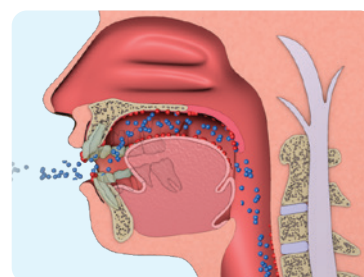
The ideal way to breathe is through the nose, during which the lungs and blood are better oxygenated and the air quality optimised. The mouth is closed, the teeth are in near contact, with the tongue pressed up against the palate. With the lip, cheek and tongue muscles functioning correctly, the jaws can develop and teeth align as nature intended<sup>2</sup>.

Mouth breathing has been known since the birth of orthodontics as a primary cause of malocclusion<sup>3</sup>. When mouth breathing, each patient produces a unique adaptation but, in general, the lips part, the tongue drops and an incorrect swallowing pattern emerges. This causes the pressures put on the teeth and jaws to change, producing a variety of malocclusions<sup>4</sup>. These poor muscle habits are collectively known as myofunctional disorders.

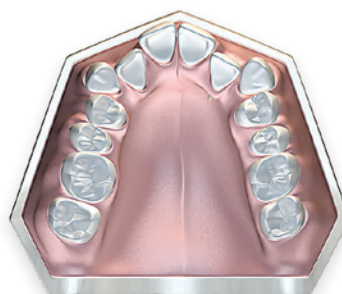
Mouth breathing has also been associated with increased incidence of caries and periodontal disease<sup>5</sup>. Many dental bodies such as the World Dental Federation (FDI)<sup>6</sup>, the American Association of Orthodontists (AAO)<sup>7</sup> and the Australian Society of Orthodontists (ASO)<sup>8</sup> now recognise the dental and medical impact of breathing disorders.



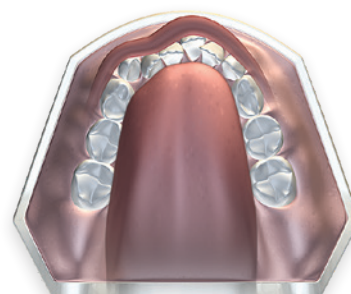
Nasal breathing with correct lip and tongue posture.



Mouth breathing causing incorrect tongue position and swallow.



Incorrect tongue positioning restricts development of the maxilla, causing crowding.

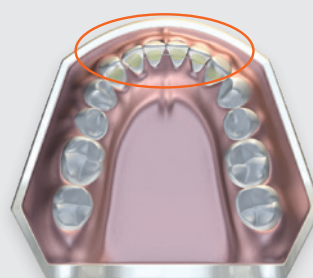


Reverse swallowing restricts mandibular development, causing crowding and Class II.

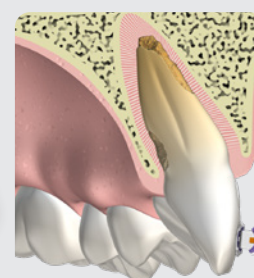
**REFERENCES:** 1. Alhammadi, M et al. Dental Press J Orthod. 2018;Nov-Dec;23(6):40.e1-40.e10. 2. Torre, C et al. J Pediatr (Rio J). 2018;94(2):101-103. 3. Haugland, L. et al. Open Journal of Stomatology. 2013; 03:329-333. 4. Enlow, D and Hans, M. (1996), *Essentials of Facial Growth*, Saunders, Philadelphia. 5. Ballikaya, E. et al. International Journal of Pediatric Otorhinolaryngology. 2018;113:11-15. 6. *Dentistry and Sleep-Related Breathing Disorders*, FDI World Dental Federation, 2018; <https://www.fdiworlddental.org/dentistry-and-sleep-related-breathing-disorders> (accessed 24 January 2023). 7. Behrents, R. et al. Am J Orthod Dentofacial Orthop. 2019;Jul;156(1):13-28.e1. 8. *Benefits of Early Orthodontic Treatment*, Aust. Society of Orthodontists, <https://www.aso.org.au/node/20099> (accessed 24 January 2023). 9. Topkara, H. et al. Eur J Dent. 2012;Oct;6(4):445-453. 10. Little, R et al. Am J Orthod Dentofacial Orthop. 1988;May;93(5):423-8. 11. Steinnes, J. et al. Am J Orthod Dentofacial Orthop. 2017;Jun;151(6):1027-1033. 12. Littlewood, S. et al. Cochrane Database Syst. 2016;Jan;29;2016(1):CD002283.

## Limitations of Conventional Treatments

Most of the time, dental practitioners ignore malocclusion until patients are in the late mixed dentition, and then intervene with braces and clear aligners, which have a number of limitations. Almost all cases suffer root resorption<sup>9</sup> and relapse<sup>10</sup> irrespective of retention<sup>11</sup>, while research on retainers is poor<sup>12</sup>. Most importantly, leaving breathing and myofunctional disorders untreated progressively complicates orthodontic issues and deteriorates health problems related to breathing disorders.



Relapse occurs irrespective of retention.



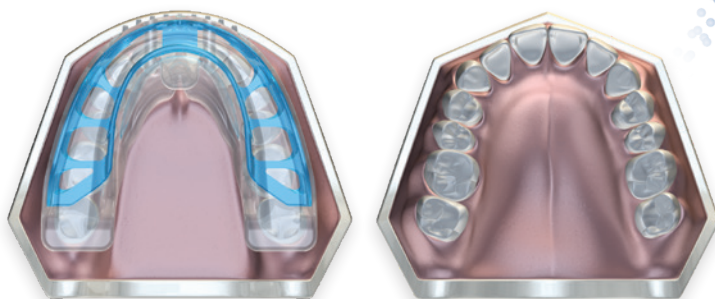
Root resorption affects all cases treated with braces.



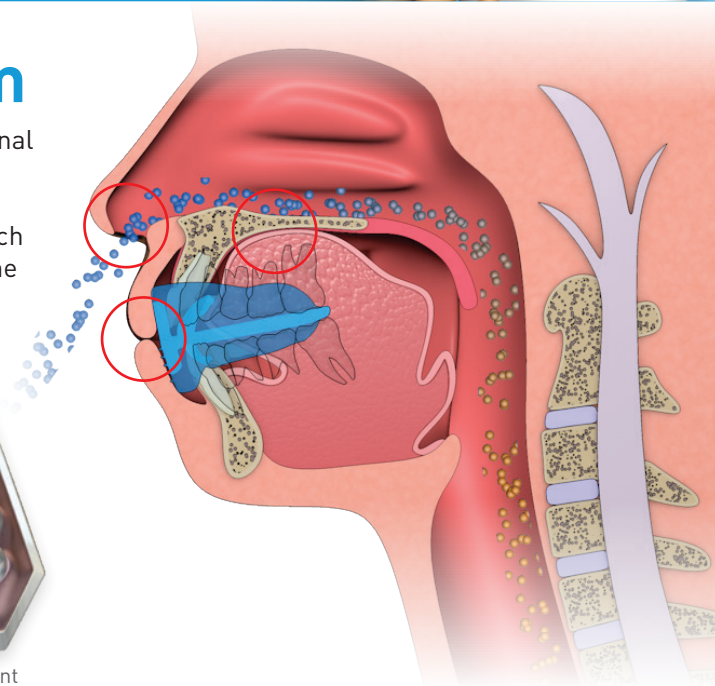
Myofunctional orthodontics addresses the underlying breathing and myofunctional habits as a priority, followed by arch development, dental alignment, then retention. This simplifies treatment, optimises patient development and promotes stability, while nasal breathing provides numerous health benefits.

## The Myobrace® System

The Myobrace® System is the world's leading myofunctional orthodontic system. It uses a sequence of prefabricated Myobrace® appliances to establish nasal breathing and correct myofunctional habits as a priority, followed by arch development, dental alignment, and retention, without the need for braces or extractions.



The Myobrace® appliances provide habit correction, arch development and orthodontic correction simultaneously.



### Myobrace® Appliance Sequence



Optimal results and ongoing stability after treatment depend on the usage of all three appliance stages shown above.

### Benefits for Your Practice

In over 100 countries around the world, dental practitioners and specialists have incorporated *The Myobrace® System* into their modern practices with great success.

- ✓ Provide a more natural approach that patients demand.
- ✓ Differentiate yourself with a unique approach to straight teeth.
- ✓ Broaden your scope and treat a wider range of patients.
- ✓ Improve clinic productivity and patient flow.
- ✓ Experience satisfaction of helping patients beyond the teeth.



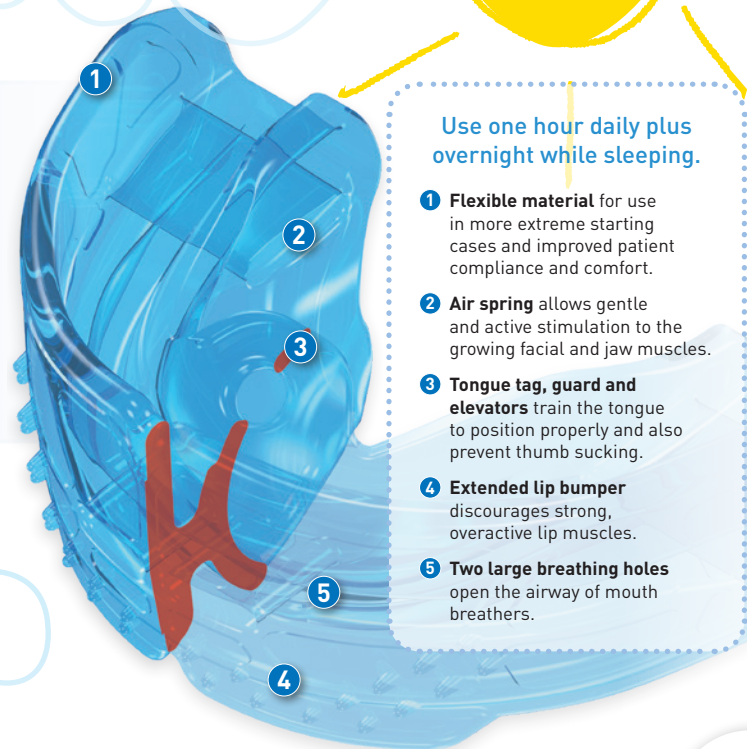
# Myobrace® for Juniors

## Primary Dentition

*Myobrace® for Juniors* provides treatment in the primary dentition that can set the foundations for good occlusion and craniofacial development through early correction of mouth breathing and poor myofunctional habits.

### Indications:

- Open bite
- Anterior and posterior crossbite
- Narrow arch
- Insufficient primate spacing
- Early breathing and myofunctional issues



Use one hour daily plus overnight while sleeping.

- 1 Flexible material** for use in more extreme starting cases and improved patient compliance and comfort.
- 2 Air spring** allows gentle and active stimulation to the growing facial and jaw muscles.
- 3 Tongue tag, guard and elevators** train the tongue to position properly and also prevent thumb sucking.
- 4 Extended lip bumper** discourages strong, overactive lip muscles.
- 5 Two large breathing holes** open the airway of mouth breathers.

### 3 - 6 YEARS

All *Myobrace®* appliances are designed to correct habits, develop the maxilla and mandible, and align the teeth. Each stage focuses on a particular treatment goal. Use of all appliances is crucial for optimum results.



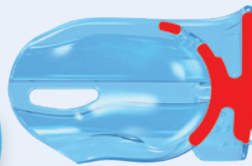
#### HABIT CORRECTION

Establish nasal breathing

#### STAGE 1



4-6 months



**J1 APPLIANCE - PERSPECTIVE VIEW** (left)

**J1 - CROSS SECTION** (above)

Available in medium and large

#### MYOBRACE® J1

The *J1* focuses on establishing nasal breathing and myofunctional habit correction. It is soft and flexible to give the best compliance, adapting to any arch form and malocclusion. It features anterior breathing holes to allow minimal mouth breathing at the beginning of treatment while the posterior air spring encourages craniomandibular muscle exercising.

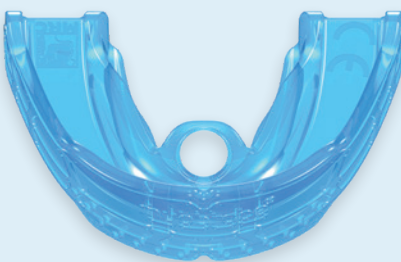
Only move to the *J2* when the *J1* is staying in at night and nasal breathing has been established.



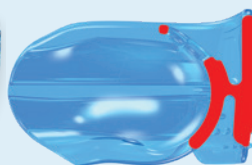
#### ARCH DEVELOPMENT

Establish correct tongue position

#### STAGE 2



4-6 months



**J2 APPLIANCE - TOP VIEW** (left)

**J2 - CROSS SECTION** (above)

Available in medium and large

#### MYOBRACE® J2

The *J2* focuses on arch development as well as continued habit correction. It has minimal breathing holes since nasal breathing is established in the previous stage. It focuses on establishing correct tongue resting position and correct swallowing. The *J2* is made from medium hardness material which assists in developing the arch form and correct jaw relationship.

Only move to the *J3* when the above goals have been established.



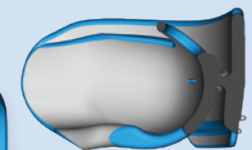
#### JAW ALIGNMENT AND RETENTION

Maintain correct lip posture and swallow

#### STAGE 3



4-6 months



**J3 APPLIANCE - REAR TECHNICAL VIEW** (left)

**J3 - CROSS SECTION** (above)

Available in medium and large

#### MYOBRACE® J3

The *J3* focuses on finalising jaw development, correcting arch form and habit correction. The *J3* material is harder and intended to apply more force to the teeth and jaws for better alignment, optimising the arch form for the erupting permanent anterior teeth. The wider tongue tag hole allows the tongue to sit in its natural position directly on the correct spot. Move to the *Myobrace® for Kids* series if further treatment is needed in the mixed dentition.

Optimal results and ongoing stability depend on the usage of all appliance stages shown above.



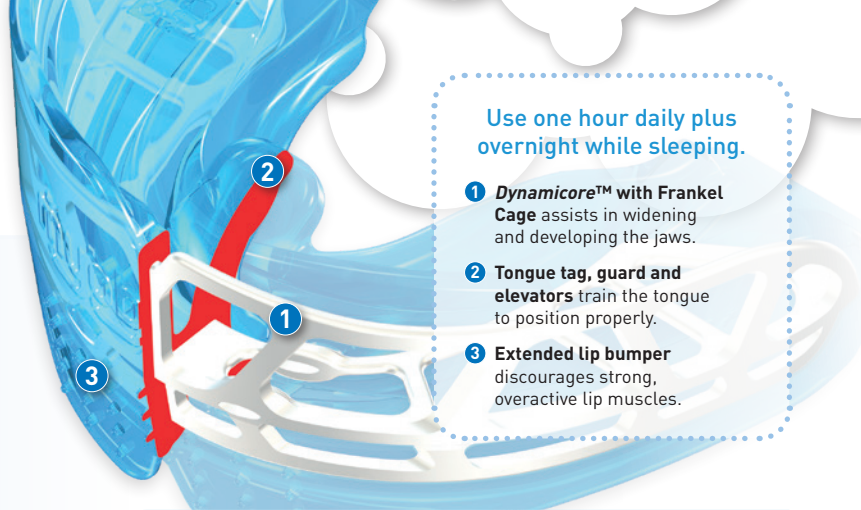
# Myobrace® for Kids

## Mixed Dentition

*Myobrace® for Kids* is the most widely used appliance range. It optimises craniofacial development and aligns the erupting anterior teeth through correction of mouth breathing and myofunctional habits, while incorporation of the *Dynamicore™* promotes maxillary arch development.

### Indications:

- Incisor crowding
- Class II (Division 1 and 2)
- Open bite and deep bite
- Narrow arch and posterior crossbite

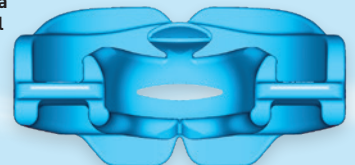


Use one hour daily plus overnight while sleeping.

- 1 Dynamicore™ with Frankel Cage** assists in widening and developing the jaws.
- 2 Tongue tag, guard and elevators** train the tongue to position properly.
- 3 Extended lip bumper** discourages strong, overactive lip muscles.



Establish a functional airway



### MYOBACE® K0

The *Myobrace® K0* is the starting appliance for mouth breathers. It focuses on establishing a functional airway through the collapsible breathing hole and initial tongue strengthening with the active tongue tag. Move to the *K1* when the *K0* is staying in overnight and the Breathing Function Tests (BFT) have improved, along with any sleep symptoms such as snoring.

### 6 - 10 YEARS

All *Myobrace®* appliances are designed to correct habits, develop the maxilla and mandible, and align the teeth. Each stage focuses on a particular treatment goal. Use of all appliances is crucial for optimum results.



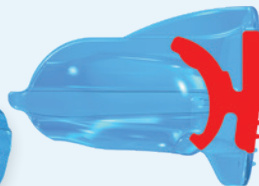
#### HABIT CORRECTION

Establish nasal breathing

#### STAGE 1



4-6 months



**K1 APPLIANCE - PERSPECTIVE VIEW** (left)  
**K1 - CROSS SECTION** (above)

Available in three sizes

### MYOBACE® K1

The *K1* focuses on establishing nasal breathing and myofunctional habit correction. It is soft and flexible to give the best compliance, adapts to any arch form and malocclusion, as well as optimises staying in place at night.

Only move to the *K2* when the *K1* is staying in at night and nasal breathing has been established.

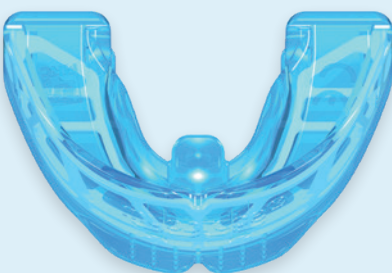


#### ARCH DEVELOPMENT

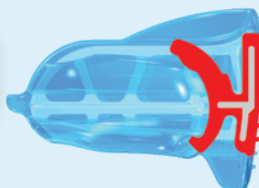
Establish correct tongue position

#### STAGE 2

with *Dynamicore™*



4-6 months



**K2 APPLIANCE - TOP VIEW** (left)  
**K2 - CROSS SECTION** (above)

Available in three sizes

### MYOBACE® K2

The *K2* focuses on arch development and continued habit correction. It features a *Dynamicore™* that assists in developing the upper and lower arch form, allowing more room to establish the correct tongue resting position and correct swallowing patterns. Only move to the *K3* when the arch form has improved, correct tongue position and swallowing patterns have been established, along with good dental alignment.



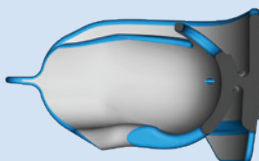
#### FINAL ALIGNMENT AND RETENTION

Maintain correct lip posture and swallow

#### STAGE 3



4-6 months



**K3 APPLIANCE - REAR TECHNICAL VIEW** (left)  
**K3 - CROSS SECTION** (above)

Available in three sizes

### MYOBACE® K3

The *K3* focuses on completing habit correction, final tooth alignment and retention with its firmer polyurethane construction. The hollow tongue tag facilitates final tongue position directly on the correct spot. This appliance is essential for retention and should be used after treatment for at least 12 months or more to optimise results and stability. The *K3* can be replaced with transition to the *T3* and *T4* for final dental alignment in the developing permanent dentition.

Optimal results and ongoing stability depend on the usage of all appliance stages shown above.

# Myobrace® for Teens

## Developing Permanent Dentition

*Myobrace® for Teens* is the myofunctional orthodontic treatment for patients in the conventional orthodontic age group and works to align the teeth, optimise facial development and provide eruption guidance, producing results that can rival braces and clear aligners.

### Indications:

- Incisor crowding
- Class II (Division 1 and 2)
- Open bite and deep bite
- Narrow arch and posterior crossbite



### 10 - 15 YEARS

All *Myobrace®* appliances are designed to correct habits, develop the maxilla and mandible, and align the teeth. Each stage focuses on a particular treatment goal. Use of all appliances is crucial for optimum results.



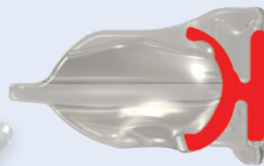
#### HABIT CORRECTION

Establish nasal breathing

#### STAGE 1



4-6 months



**T1 APPLIANCE - PERSPECTIVE VIEW** (left)

**T1 - CROSS SECTION** (above)

Available in medium and large

### MYOBACE® T1

The *T1* focuses on establishing nasal breathing and myofunctional habit correction. It is soft and flexible to give the best compliance, adapts to any arch form and malocclusion, as well as optimises staying in place at night.

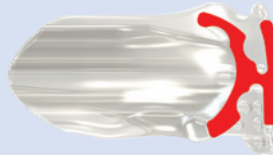
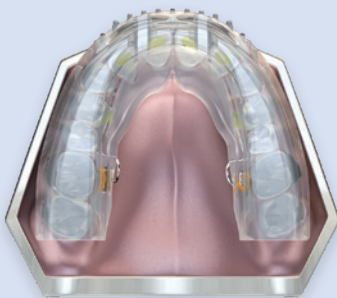
Only move to the *T2* when the *T1* is staying in at night and nasal breathing has been established.



#### ARCH DEVELOPMENT

Establish nasal breathing and correct arch form

#### STAGE 1



**T1BWS APPLIANCE - ON TYPODONT** (left)

**T1BWS - CROSS SECTION** (above)

Available in medium

### MYOBACE® T1BWS

The *T1BWS* is designed to be used with *The Farrell Bent Wire System™ (BWS)* to obtain more rapid arch development. It focuses on establishing nasal breathing and myofunctional correction, while the *BWS* expands the arch form to allow more room for the correct tongue position.

Once sufficient space in the upper arch form has been obtained, the *BWS* is removed and treatment progresses to the *Myobrace® T2*.

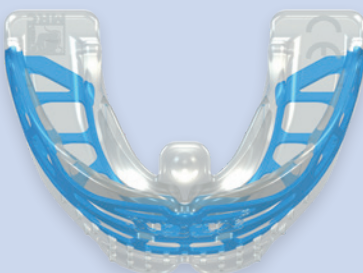


#### ARCH DEVELOPMENT

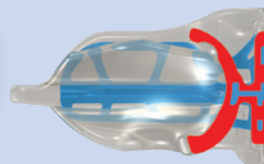
Establish correct tongue position, lip posture and swallow

#### STAGE 2

with *Dynamicore™*



4-6 months



**T2 APPLIANCE - TOP VIEW** (left)

**T2 - CROSS SECTION** (above)

Available in medium and large

### MYOBACE® T2

The *T2* focuses on obtaining and maintaining correct arch development with the *Dynamicore™* specific to this age group, which has extra elements in the anterior region to promote further development of the anterior arch form. This allows space for the tongue to establish the correct resting position and swallowing patterns, improving dental alignment. Only move to the *T3* when all of the above goals have been established.

Optimal results and ongoing stability depend on the usage of all appliance stages shown above.



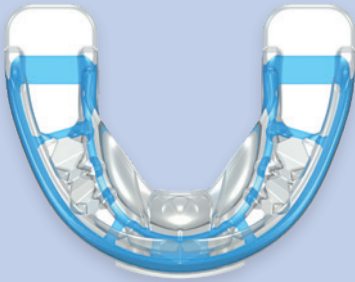


### DENTAL ALIGNMENT

Tooth alignment once habits and compliance are good

STAGE 3

with *Dynamicore™*



4-6 months



**T3 APPLIANCE - TOP VIEW** (left)

**T3 - CROSS SECTION** (above)

Available in seven sizes

### MYOBACE® T3

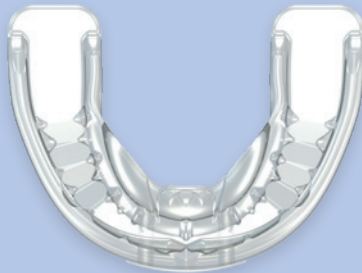
The *T3* is the tooth alignment stage of treatment. The *Dynamicore™* acts as an arch wire and the tooth slots increase arch length, along with assisting dental alignment. Compliance with the *T3* is essential to prevent losing arch form space, which occurs when the appliance is not worn regularly. The *T3* predominately focuses on dental alignment, but still has habit correction features similar to the *T1* and *T2*. Move to the *T4* when satisfactory dental alignment has been achieved.



### DENTAL ALIGNMENT

Tooth alignment once habits and compliance are good

STAGE 3



**T3N APPLIANCE - TOP VIEW** (left)

**T3N - CROSS SECTION** (above)

Available in seven sizes

### MYOBACE® T3N

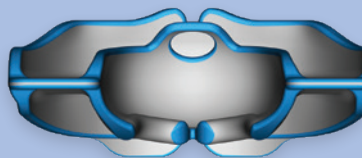
The *T3N* is identical to the *T3*, except it does not contain the inner *Dynamicore™*. This makes it more flexible with better retention. It is suitable in some cases to use initially at night while sleeping in conjunction with use of the *T3* during the day. An alternative is to use the *T2* at night and the *T3* during the day for 1-2 months, followed by the *T3* at all times. Move to the *T4* at night after 2 months and the appliance is staying in the mouth every night.



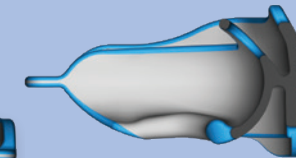
### RETENTION

Retain dental alignment while maintaining correct habits

STAGE 4



4-6 months



**T4 APPLIANCE - REAR TECHNICAL VIEW** (left)

**T4 - CROSS SECTION** (above)

Available in medium and large

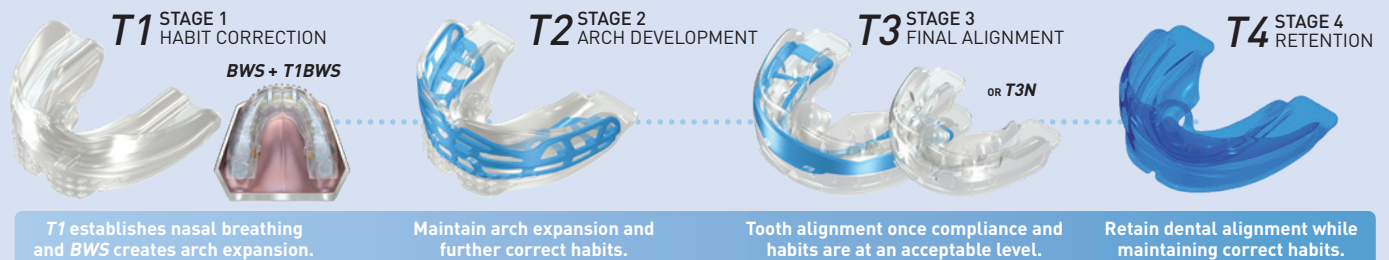
### MYOBACE® T4

The *T4* is the final appliance in the *Myobrace® for Teens* appliance group, and finalises arch development, dental alignment and habit correction. The hollow tongue tag encourages the tongue to position on the spot. The *T4* can also be used as a long-term retainer.

The *T4* is essential for retention and should be used after treatment for at least 12 months or more to optimise results and stability.

Optimal results and ongoing stability depend on the usage of all appliance stages shown above.

## Myobrace® for Teens Appliance Sequence



## Case Study - Treatment Using the Myobrace® for Teens Appliance Series



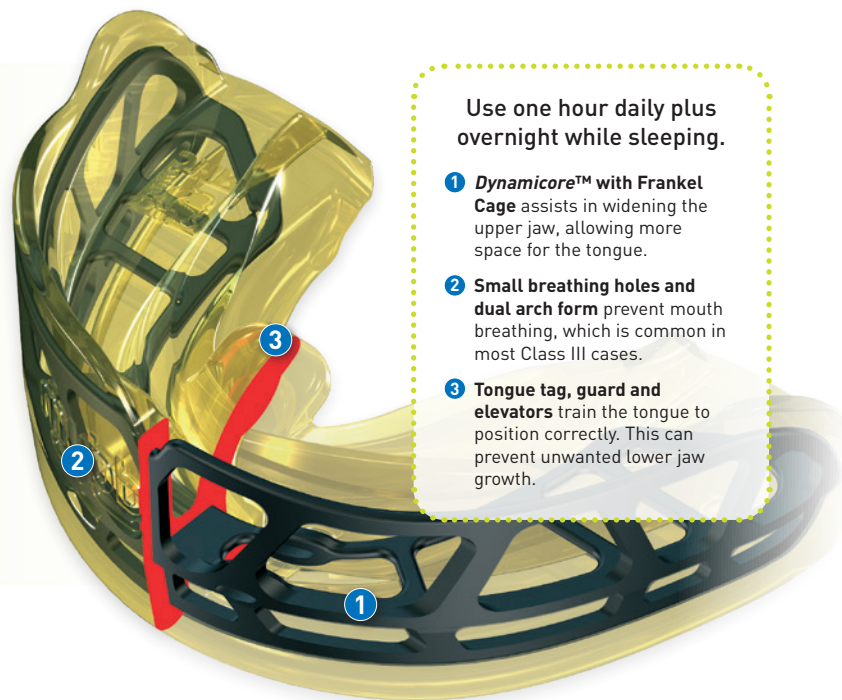
This patient had a severe Class II malocclusion at age 13 years and 6 months. The Myofunctional Orthodontic Evaluation (MOE) indicated that the patient was a mouth breather with a reverse swallowing pattern and aberrant lip function.

Significant improvements to the dental alignment and facial development occurred after 12 months using the *Myobrace® for Teens* series to establish nasal breathing, correct myofunctional habits and Class II correction.

# Myobrace® Interceptive Class III

## Mixed Dentition

*Myobrace® Interceptive Class III* allows for early treatment of Class III in the mixed dentition, which is a critical time period that allows habit correction to promote midfacial development and normalise the dental and skeletal relationship. The appliance group can be used from 5 to 12 years of age, but optimum results are achieved between 5 and 8.



Use one hour daily plus overnight while sleeping.

- 1 **Dynamicore™ with Frankel Cage** assists in widening the upper jaw, allowing more space for the tongue.
- 2 **Small breathing holes and dual arch form** prevent mouth breathing, which is common in most Class III cases.
- 3 **Tongue tag, guard and elevators** train the tongue to position correctly. This can prevent unwanted lower jaw growth.

Used with *The Farrell Bent Wire System™ (BWS)* and *Myolay™*

### 5 - 12 YEARS

All *Myobrace®* appliances are designed to correct habits, develop the maxilla and mandible, and align the teeth. Each stage focuses on a particular treatment goal. Use of all appliances is crucial for optimum results.

## i-3<sup>N</sup>

#### HABIT CORRECTION

Establish nasal breathing

STAGE 1



4-6 months



*i-3N* APPLIANCE - PERSPECTIVE VIEW (left)  
*i-3N* - CROSS SECTION (above)  
Available in medium and large

#### MYOBACE® i-3N

The *i-3N* focuses on establishing nasal breathing and myofunctional habit correction. It is soft and flexible to give the best compliance, adapts to any arch form and malocclusion, as well as optimises staying in place at night.

Only move to the *i-3®* when the *i-3N* is staying in at night and nasal breathing has been established.

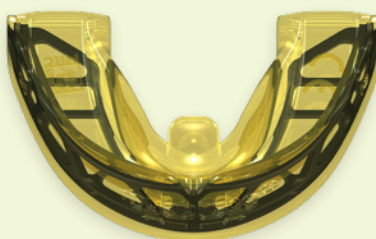
## i-3<sup>®</sup>

#### ARCH DEVELOPMENT

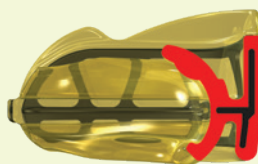
Establish correct tongue position

STAGE 2

with *Dynamicore™*



4-6 months



*i-3®* APPLIANCE - TOP VIEW (left)  
*i-3®* - CROSS SECTION (above)  
Available in medium and large

#### MYOBACE® i-3®

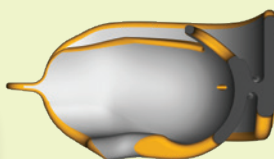
The *i-3®* focuses on arch development and continued habit correction. It features a *Dynamicore™* that has the Frankel effect, which assists in developing the upper arch form. This helps to correct the Class III malocclusion. Only move to *i-3H* when the arch form has improved and tongue resting position and correct swallowing patterns have been established with good dental alignment.

## i-3<sup>H</sup>

#### FINAL ALIGNMENT AND RETENTION

Maintain correct lip posture and swallow

STAGE 3



*i-3H* APPLIANCE - REAR TECHNICAL VIEW (left)  
*i-3H* - CROSS SECTION (above)  
Available in medium and large

#### MYOBACE® i-3H

The *i-3H* focuses on completing habit correction, Class III correction, final tooth alignment and retention with its firmer polyurethane construction. This appliance is essential for retention and should be used after treatment for at least 12 months or more to optimise results and stability.

The hollow tongue tag facilitates final tongue position directly on the correct spot.

Optimal results and ongoing stability depend on the usage of all appliance stages shown above.



# Myobrace® Permanent Dentition Class III

## Permanent Dentition

*Myobrace® Permanent Dentition Class III* presents a non-invasive treatment option for patients in the permanent dentition who have missed the opportunity for *Interceptive Class III* treatment. Since these patients are no longer growing, correction of the jaw discrepancy is difficult, which is why this range has a particular focus on dental Class III in addition to the improvement of habits.



Use one hour daily plus overnight while sleeping.

- 1 **Dynamicore™ with Frankel Cage** assists in widening the upper jaw, allowing more space for the tongue.
- 2 **Small breathing holes and dual arch form** prevent mouth breathing that is common in most Class III cases.
- 3 **Tongue tag, guard and elevators** train the tongue to position correctly.
- 4 **3mm offset** corrects the underbite by pushing upper teeth forward and lower teeth back.

Used with *The Farrell Bent Wire System™ (BWS)* and *Myolay™*

12 YEARS+

All *Myobrace®* appliances are designed to correct habits, develop the maxilla and mandible, and align the teeth. Each stage focuses on a particular treatment goal. Use of all appliances is crucial for optimum results.

**P-3<sup>N</sup>**

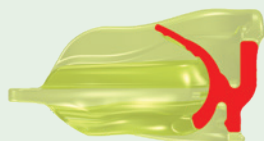
**HABIT CORRECTION**

Establish nasal breathing

STAGE 1



4-6 months



**P-3N APPLIANCE - PERSPECTIVE VIEW** (left)  
**P-3N - CROSS SECTION** (above)

Available in medium

### MYOBACE® P-3N

The *P-3N* focuses on establishing nasal breathing and initial habit correction. It is soft and flexible, giving the best compliance while being adaptive to any arch form and malocclusion. The 3mm offset common to the entire range begins the process of dental Class III correction. Move to the *P-3®* when the *P-3N* is staying in overnight and nasal breathing has been established.

**P-3<sup>®</sup>**

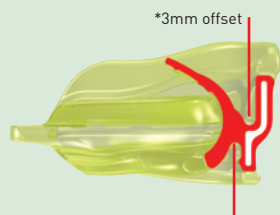
**ARCH DEVELOPMENT**

Continue habit correction

STAGE 2



4-6 months



**P-3® APPLIANCE - TOP VIEW** (left)  
**P-3® - CROSS SECTION** (above)

Available in medium

### MYOBACE® P-3®

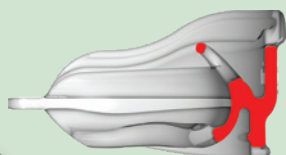
The *P-3®* focuses on arch development and continued habit correction. It features a revolutionary *Dynamicore™* inner cage for arch development that further improves habit correction. The 3mm offset common to the entire range continues the process of dental Class III correction. Move to the *P-3H* when the *P-3®* has corrected the arch form, occlusion, breathing and myofunctional habits.

**P-3<sup>H</sup>**

**FINAL ALIGNMENT AND RETENTION**

Maintain correct lip posture and swallow

STAGE 3



**P-3H APPLIANCE - REAR TECHNICAL VIEW** (left)  
**P-3H - CROSS SECTION** (above)

Available in three sizes

### MYOBACE® P-3H

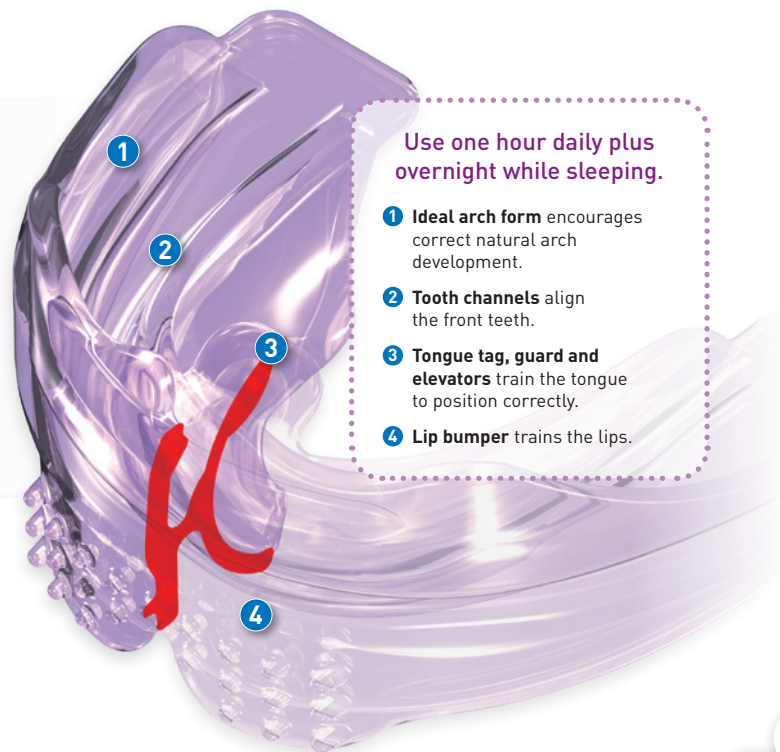
The *P-3H* focuses on final alignment of the teeth and retention of the arch form, breathing and myofunctional habits. By this stage of treatment, patients' teeth will be mostly aligned and the *P-3H* can be used to finalise correction, while the 3mm offset maintains the correct dental relationship. The breathing holes are absent as the patient should be nasal breathing by this stage. The *P-3H* is to be used as per *MRC's* retention protocols.

Optimal results and ongoing stability depend on the usage of all appliance stages shown above.

# Myobrace® for Adults

## Permanent Dentition

*Myobrace® for Adults* provides treatment in the permanent dentition, where malocclusion and incorrect habits have been established for many years, which is why results in this age group are less predictable. It has a primary focus on dental alignment with improvement of underlying habits.



Use one hour daily plus overnight while sleeping.

- 1 **Ideal arch form** encourages correct natural arch development.
- 2 **Tooth channels** align the front teeth.
- 3 **Tongue tag, guard and elevators** train the tongue to position correctly.
- 4 **Lip bumper** trains the lips.

### Indications:

- Mild to moderate incisor crowding
- Mild Class II (Div 1 and 2)
- Narrow arch form due to mouth breathing
- Usually combined with *BWS*

### 15 YEARS+

All *Myobrace®* appliances are designed to correct habits, develop the maxilla and mandible, and align the teeth. Each stage focuses on a particular treatment goal. Use of all appliances is crucial for optimum results.



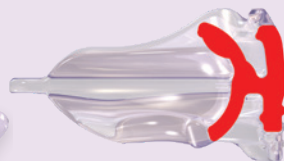
#### HABIT CORRECTION

Establish nasal breathing

#### STAGE 1



4-6 months



**A1 APPLIANCE - PERSPECTIVE VIEW** (left)

**A1 - CROSS SECTION** (above)

Available in medium and large

#### MYOBACE® A1

The A1 focuses on establishing nasal breathing and myofunctional habit correction. It is soft and flexible to give the best compliance, adapts to any arch form and malocclusion, as well as optimises staying in place at night.

Only move to the A2 when the A1 is staying in at night and nasal breathing has been established. The A1 can be combined with *The Farrell Bent Wire System™* (BWS) if the arch form is narrow.



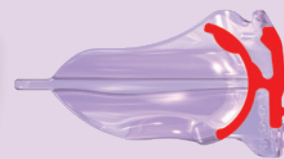
#### ARCH DEVELOPMENT

Establish correct tongue position

#### STAGE 2



4-6 months



**A2 APPLIANCE - TOP VIEW** (left)

**A2 - CROSS SECTION** (above)

Available in medium and large

#### MYOBACE® A2

The A2 provides arch development, habit correction and dental alignment due to the medium hardness polyurethane material used. The harder material puts more force on the anterior teeth to improve their alignment. The focus of the A2 is to establish correct tongue position and swallowing in the adult patient.

Move to the A3 once all the habit correction goals above have been achieved.



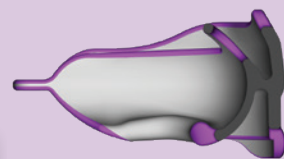
#### FINAL ALIGNMENT AND RETENTION

Maintain correct lip posture and swallow

#### STAGE 3



4-6 months



**A3 APPLIANCE - REAR TECHNICAL VIEW** (left)

**A3 - CROSS SECTION** (above)

Available in medium and large

#### MYOBACE® A3

The A3 provides final alignment and retention. Its firm polyurethane construction provides additional tooth alignment and retention, as well as additional final habit correction. The hollow tongue tag allows finalised tongue position on the correct spot. This appliance is essential for retention and should be used after treatment for at least 12 months or more to optimise results and stability.

Optimum final alignment can be achieved with sequential braces or aligners combined with the *Myobrace® for Braces* series.

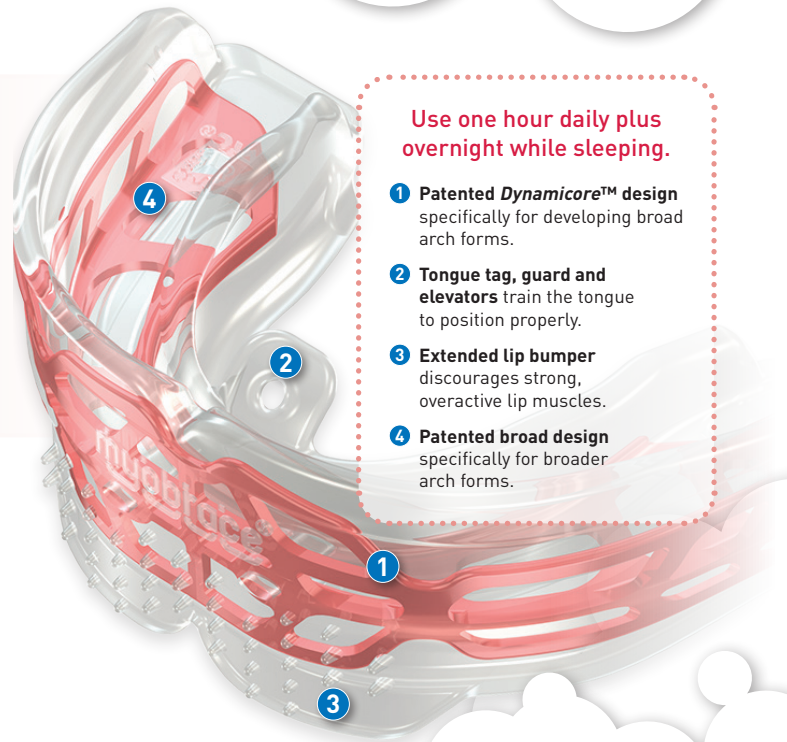
Optimal results and ongoing stability depend on the usage of all appliance stages shown above.



# Myobrace® for Kids - Broad

## Mixed Dentition

*Myobrace® for Kids - Broad* is designed for certain genetic groups with flatter anterior segments, wide canine areas and diverging posterior segments. Establishment of the correct arch form in these patients is crucial for optimising dental alignment, facial development and post-treatment stability.



Use one hour daily plus overnight while sleeping.

- 1 Patented *Dynamicore™* design specifically for developing broad arch forms.
- 2 Tongue tag, guard and elevators train the tongue to position properly.
- 3 Extended lip bumper discourages strong, overactive lip muscles.
- 4 Patented broad design specifically for broader arch forms.

### Indications (for broad arch forms):

- Incisor crowding
- Class II (Division 1 and 2)
- Open bite and deep bite
- Narrow arch and posterior crossbite
- Class III in the mixed dentition

#### 6 - 12 YEARS

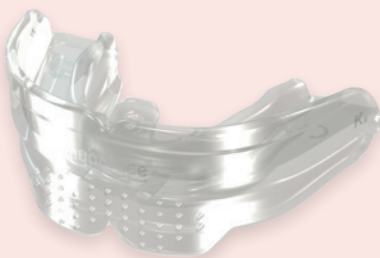
All *Myobrace®* appliances are designed to correct habits, develop the maxilla and mandible, and align the teeth. Each stage focuses on a particular treatment goal. Use of all appliances is crucial for optimum results.



#### HABIT CORRECTION

Establish nasal breathing

#### STAGE 1



4-6 months



**K1 BROAD APPLIANCE - PERSPECTIVE VIEW** (left)

**K1 BROAD - CROSS SECTION** (above)

Available in medium and large

#### MYOBACE® K1 BROAD

The *K1 Broad* focuses on establishing nasal breathing and myofunctional habit correction. It is soft and flexible to give the best compliance, adapts to any arch form and malocclusion, as well as optimises staying in place at night.

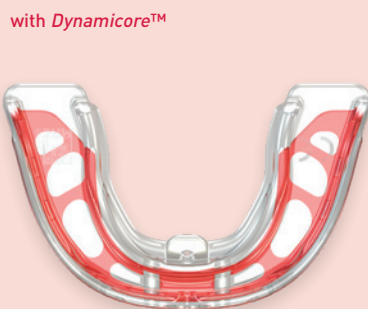
Only move to the *K2 Broad* when the *K1 Broad* is staying in at night and nasal breathing has been established.



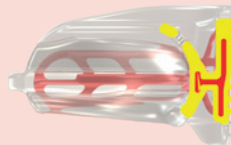
#### ARCH DEVELOPMENT

Establish correct tongue position

#### STAGE 2



4-6 months



**K2 BROAD APPLIANCE - TOP VIEW** (left)

**K2 BROAD - CROSS SECTION** (above)

Available in medium and large

#### MYOBACE® K2 BROAD

The *K2 Broad* focuses on arch development and continued habit correction. The *K2 Broad* features a *Dynamicore™* to assist in developing the upper and lower arch form. This allows more space to establish correct tongue position and correct swallowing. This, in turn, improves dental alignment.

Move to the *K3 Broad* when arch form has improved, as well as the tongue resting position and correct swallowing patterns have been established.



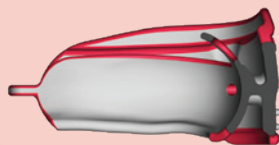
#### FINAL ALIGNMENT AND RETENTION

Maintain correct lip posture and swallow

#### STAGE 3



4-6 months



**K3 BROAD APPLIANCE - REAR TECHNICAL VIEW** (left)

**K3 BROAD - CROSS SECTION** (above)

Available in medium

#### MYOBACE® K3 BROAD

The *K3 Broad* focuses on completing habit correction, final tooth alignment and retention with its firmer polyurethane construction. This appliance is essential for retention and should be used after treatment for at least 12 months or more to optimise results and stability.

The hollow tongue tag facilitates final tongue position directly on the correct spot.

Optimal results and ongoing stability depend on the usage of all appliance stages shown above.



# See the Results!

## Primary Dentition

- Open bite
- Overjet
- Narrow dental arches
- Insufficient spacing
- Mouth breathing
- Low tongue position
- Tongue thrust swallow
- Lips apart at rest

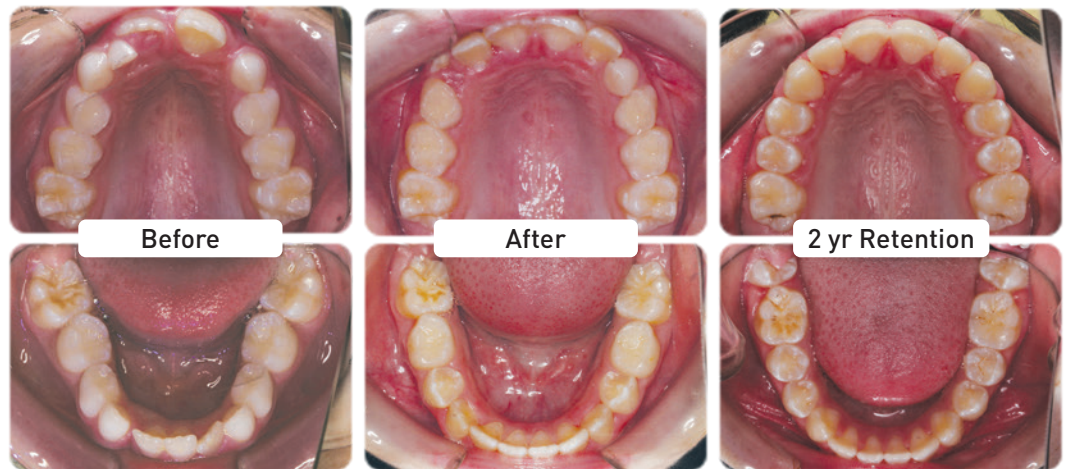
Treated with  
*Myobrace® for Juniors*



## Mixed Dentition

- Narrow upper and lower jaw
- Crowding
- Deep bite
- Overjet
- Mouth breathing
- Snoring
- Low tongue position
- Labiomentalis swallow

Treated with  
*Myobrace® for Kids and BWS*



## Mixed Dentition Class III

- Narrow upper and lower jaw
- Crowding
- Deep bite
- Overjet
- Mouth breathing
- Snoring
- Tongue in floor of mouth
- Labiomentalis swallow

Treated with *Myobrace®*  
*Permanent Dentition Class III*  
and *BWS*



## Developing Permanent Dentition

- Narrow upper and lower jaw
- Crowding
- Deep bite
- Overjet
- Mouth breathing
- Snoring
- Low tongue position
- Labiomentalis swallow

Treated with  
*Myobrace® for Teens and BWS*





# Adjunctive Systems

The *Myobrace® System* incorporates a number of different appliances and techniques. Although the *Myobrace®* appliances are the central focus of the system, the *Myobrace® Activities*, the *Myotalea®* appliances and unique arch development techniques are incorporated to broaden the scope and effectiveness of the system.

## Myobrace® Activities

The *Myobrace® Activities* were first released by MRC in 2012 as a better way to provide comprehensive myofunctional training as part of *The Myobrace® System*. Although the *Myobrace®* appliances are designed to help the patient passively adopt the correct muscle patterns, the *Myobrace® Activities* play the crucial role of actively strengthening and habitually altering the function of the orofacial muscles.

The activities are designed to be simple but delivered in a logical sequence to rehabilitate the patient's myofunctional habits in the order that they develop. A collection of animated videos are delivered to the patient, allowing myofunctional education to occur in the most effective way to educate children in the 21st century. This not only has the effect of improving patient understanding, but also optimising patient compliance.



*Myobrace® Activities* delivered by a *Myobrace®* educator presents a better way of delivering myofunctional exercises to capture the attention of the modern child. **Not available in all languages.**

## Myotalea® Appliances

The *Myotalea®* appliances by MRC are a range of active myofunctional appliances designed to strengthen, stretch and tone the oral, facial and airway muscles. Myofunctional appliances are known to be effective tools in promoting education, compliance and precision in myofunctional therapy.

Ideally, *Myotalea®* is used to supplement the *Myobrace® Activities* when providing *Myobrace®* treatment, however, practitioners getting started can initially use the *Myotalea®* appliances alone to provide active treatment as a simple alternative. More information on the *Myotalea®* appliances can be found in the *Myotalea®* catalogue.

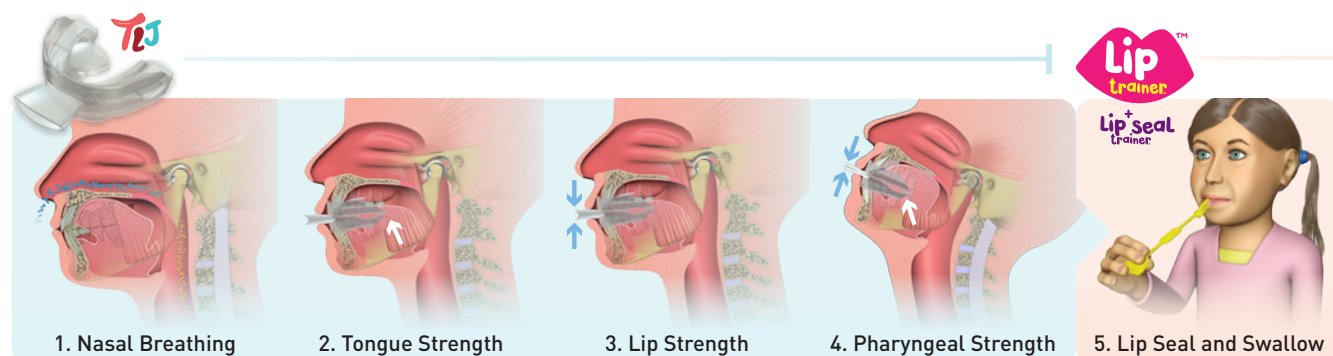


*Myotalea®* is the most comprehensive and precise range of active myofunctional appliances.

## Myobrace® Activities Fast Track

Although the *Myobrace® Activities* is more comprehensive and will broaden your treatment scope, the *Myobrace® Activities Fast Track* uses the *Myotalea®* appliances to present an initial alternative suitable for practitioners wanting a simpler and quicker program to correct mouth breathing and improve the function of the oral, facial and airway muscles.

**myobrace®**  
Activities **FAST TRACK**

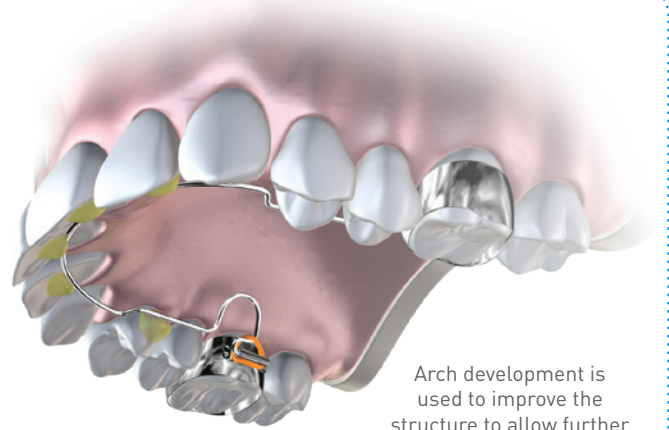


# Arch Development

## Effective Arch and Jaw Development to Enhance Habit Correction

*Myobrace*® treatment aims to establish the correct habits and function so that patients' teeth, arch form and jaw (collectively known as the structure) development can progress optimally. However, there are instances where the patient's structure can make the correction of function difficult or impossible.

For example, an arch that is too narrow prevents the tongue from resting comfortably in the palate that further restricts arch development, or, a Class III can lock the underdeveloped upper jaw within the lower jaw, preventing its forward development. In these instances, arch development techniques need to be used to develop the structure sufficiently to then allow functional correction.



Arch development is used to improve the structure to allow further correction of function.

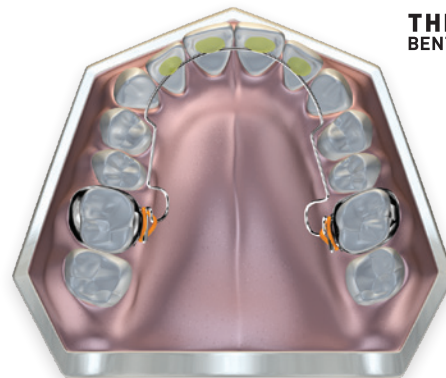
## The Farrell Bent Wire System™ (BWS)

For simultaneous arch development and habit correction

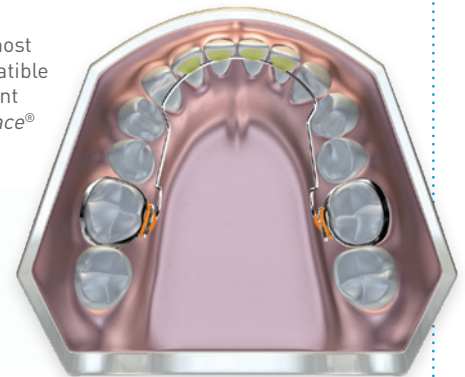
The *BWS* was invented by Dr Chris Farrell (Founder and CEO of MRC) in response to the need for an arch expansion solution compatible with the principles of myofunctional orthodontics. Most arch expansion techniques violate the principles of growth and development by traumatising the midpalatal suture and interfering with tongue position. The *BWS* was created in response as a simple solution that any practitioner can implement and auxiliary staff can fabricate in-house.

It works on developing the dental arches using light intermittent forces without occupying space in the palate. It is combined with the *Myobrace*® appliances simultaneously, allowing myofunctional training to continue unhindered. When getting started, practitioners can treat simple cases with just the *Myobrace*® appliances, however, if you'd like to treat various patient age groups or more complex malocclusions, knowledge of the *BWS* is a must!

**BWS**<sup>™</sup>  
THE FARRELL  
BENT WIRE SYSTEM



The *BWS* is the most effective and compatible arch development method in *Myobrace*® treatment.



Scan this QR code to learn more about the *BWS* and find out how you can start using this technique by completing our online course!

## Case Study - Treatment Using the BWS



Before



BWS Fit



After

This case demonstrates arch development capability when the *BWS* is combined with good *Myobrace*® compliance. Please note this is an advanced case and not recommended for beginners.

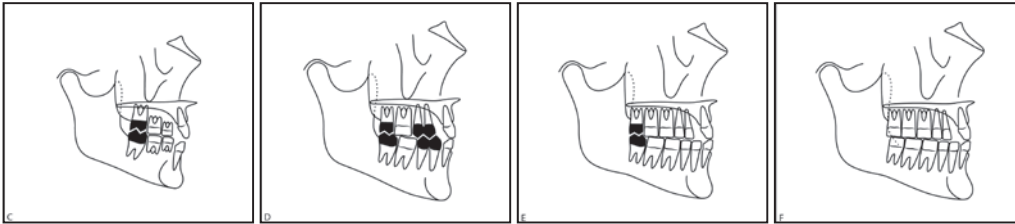
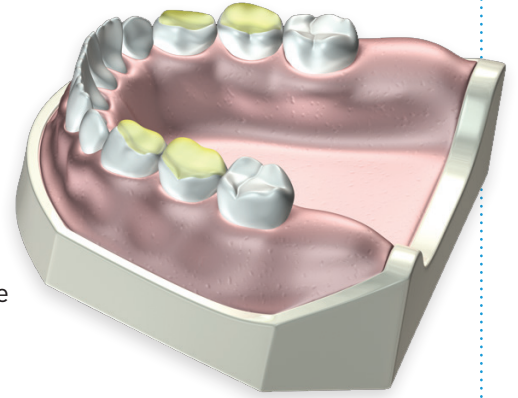


## Myolay™

To re-establish the correct jaw relationship and occlusion

*Myolay™* is a composite build-up technique invented by Dr Chris Farrell that was modelled off the Planas Direct Tracks (PDT). Where function is the driver of growth, the patient's occlusion is the factor that guides growth and development. A correct occlusion is vital to ensure the jaws develop in harmony to one another.

*Myolay™* was created to allow correct positioning of the jaws using composite buildups that can be used while the *Myobrace®* is worn. This assists the patient in establishing the correct occlusion while the *Myobrace®* appliance works on function to optimise growth and development.



During growth, the proper occlusion guides the patient's jaw development.

Van Der Linden, Frans P. G. M.  
(1986). *Facial Growth and Facial Orthopedics*. Quintessence Publishing Co.

## Case Study - Treatment of Class III Malocclusion Using the *Myobrace®* Appliances and *Myolay™*



*Myolay™* unlocks the patient's occlusion, allowing the *Myobrace®* to correct habits and encourage upper jaw development, correcting the underbite effectively and with stability.

## Other Appliances

In the vast majority of cases, the *BWS* and *Myolay™* combined with *Myobrace®* are sufficient to treat most patients. However, practitioners should be aware that certain clinical situations may arise that require the use of other appliances. Practitioners should either train in these other appliances separately or form partnerships with associates and referral clinics who can implement these treatments when required.

**Braces** - Braces are seldom used in myofunctional orthodontic treatment, but the most common indications are precise tooth movements and poor compliance. Knowledge of fixed orthodontics or partnership with another clinic or associate is recommended for practitioners treating complex cases. Always use the *Myobrace®* for Braces when using fixed orthodontics.

**Acrylic expanders** - There are some rare instances where the *BWS* or *Myolay™* are unsuitable and the use of acrylic expanders may be considered. Since they interfere with function, they should only be used as a last resort. The Biobloc Stage 1 (BB1) is recommended due to its ability to provide semi-rapid expansion and to develop the arch in three dimensions.

**Functional appliances** - In severe cases, especially overjets greater than 10 millimetres, patients may struggle to use the *Myobrace®* appliance. The use of a functional appliance may be considered to reduce the severity. This is not ideal due to the retraction from reciprocal anchorage to the top jaw so, if necessary, the Biobloc Stage III (BB3) is recommended as it harnesses the patient's muscles rather than anchorage to the upper jaw.

The above list is not exhaustive and practitioners are encouraged to familiarise themselves with any appliances or techniques necessary to address the patient's chief concerns. It is important, however, that if other techniques are used and a deviation from the *Myobrace®* protocol occurs, practitioners can expect suboptimal results. In the majority of cases, the use of other appliances is not necessary when treating patients with *The Myobrace® System*. For optimum results and stability, the entire *The Myobrace®* protocol should be applied, including the retention appliances.

## About Myofunctional Research Co. (MRC)

MRC is the global leader in the development of intraoral appliance technology for the treatment of conditions related to breathing and myofunctional disorders, including malocclusion, TMJ dysfunction, sleep breathing disorders, snoring, bruxism, and more. Since the company was founded in 1989, it has consistently innovated new appliance systems coupled with state-of-the-art digital resources to improve patient compliance and acclaimed educational programs to help practitioners understand the most effective and efficient ways to implement this type of treatment into their modern practices. Join the countless practitioners in over 100 countries who have gained a new perspective on providing healthcare by using MRC's treatment systems today!

### Start using MRC's appliance systems in three simple steps!



#### 1 Visit our website

At [www.myoresearch.com](http://www.myoresearch.com) you can find online courses, appliance information and much more!



#### 2 Contact an MRC representative

We will answer your questions and guide you at each step during implementation.



#### 3 Continue learning

We offer in-person seminars and advanced online courses to enhance your clinical skills.

## Have You Seen MRC's Other Appliance Systems?

Since 1989, MRC has been innovating cutting-edge prefabricated intraoral appliances to empower practitioners to treat the breathing and myofunctional disorders that underpin malocclusion, TMJ and sleep breathing disorders. View some of our other systems below:

### myobrace FOR BRACES



Myobrace® for Braces provides simultaneous habit correction with braces, simplifying treatment, improving stability and providing numerous other benefits.

### myosa® MYOFUNCTIONAL SLEEP APPLIANCE



The Myosa® appliances are designed to treat breathing and myofunctional disorders to improve the symptoms of TMJ and sleep breathing issues in both children and adults.

### myoTAREA® TONGUE AND LIP EXERCISE APPLIANCE



The Myotarea® range are active myofunctional appliances designed to improve the stretch, strength and tone of the orofacial muscles to assist in habit correction.

For more info contact MRC representative in Bahrain and Saudi Arabia.



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