



CONCORDIA

dental healthcare

Information and Consent form for Myofunctional Therapy

Over the last 25 years Myofunctional Research Co. (MRC) has recognised that Soft Tissue Dysfunction or poor myofunctional habits such as mouth breathing, incorrect tongue position, reverse swallowing and thumb sucking are the real causes of malocclusion and poor cranio-facial development.

75% of growing children are affected and most commonly will presents with crooked teeth, undeveloped facial and jaw bones, TMJ (Temporomandibular joint) dysfunction and poor body posture.

Incorrect dental and facial development can be detected at an early age, but so often no treatment is recommended. It is well known that the majority of our children do not develop their jaws and face correctly. This results in crowded teeth and underdeveloped faces.

Braces and extracting teeth in teenage years does not solve the underlying problems behind the causes of crooked teeth and incorrect facial development.

The balanced cranium provides the anchor points for the tension membranes which support the brain. The rhythmic pulsing of the brain as it expands and contracts, when breathing, provides the basis for the sacro-occipital pump which circulates cerebro-spinal fluid. One of the most important aspects of normal cranial function is the position of the jaw. When the lower jaw (Mandibel) comes in contact with the upper jaw (Maxilla) the movement should be symmetrical, simultaneous and even. This constitutes normal cranio-dental function. When the jaw becomes distorted the entire balance of the cranium is put in jeopardy.

A misaligned jaw will change the bite plane and ultimately the bite, affecting the cranium, TMJ, muscle balance, normal spinal mechanics and pelvic stability.

The TMJ and sacro-iliac joint both work in conjunction with one another, compensating for one another when either joint becomes misaligned. With an abnormal bite the TMJ becomes dysfunctional and this creates instability at the weight bearing sacro-iliac joint in the pelvis. This leads to poor body posture.

Good cranial development is needed for optimum neurological development. The cranium consists of 28 bones, any distortion will affect transmission within the brain, cranial nerves and ultimately the nervous system.



Cranial development is 65% completed at age 8 years and 95% completed at 12 years of age, therefore it is essential that intervention occurs as early as possible assisting cranial development to its optimum genetic potential.

Mouth breathing is abnormal and is one of the causes of Sleep Disorder Breathing (SDB) problems. SDB in children has been recognised as causing widespread health, developmental and behavioural problems, including snoring, gasping, cessation of breathing such as Obstructive Sleep Apnoea (OSA) and interrupted sleep, which can result in drowsiness during the day as well as behavioural problems in children. Additionally, as well as being detrimental to the development of the face, jaws and teeth, if left untreated paediatric SDB can lead to significant and serious health problems causing poor quality of life later in adulthood.

A normal upper arch form because the tongue rests in the area (palate) between the upper teeth. There it counteracts the pressure of the cheeks, which would otherwise push your teeth inwards and create a narrow arch with crooked teeth. If the tongue and lips are not functioning correctly, crowded teeth and underdeveloped jaws are the result. This is called Soft Tissue Dysfunction or incorrect myofunctional habits. If function and jaw shape are correct, there is always plenty of room for teeth.

What causes Orthodontic problems?

The majority of children (75%) now have crooked teeth, incorrect jaw development and other orthodontic problems, which is evident from 3-5 years of age, are not caused by big teeth in small jaws or hereditary factors. However, rather than blame genetics for crooked teeth and poor jaw development, modern research has produced evidence that points to other causes.

Mouth breathing, incorrect tongue positioning, reverse swallowing and thumb sucking, known as incorrect myofunctional habits, are the real causes of malocclusion and poor cranio-facial growth. If a child breathes through their mouth during the day or while sleeping at night, the tongue drops to the bottom of the mouth, which results in upper and lower jaw development problems. Allergies, asthma and open mouth posture also cause the jaws to develop incorrectly.

The restricted development limits the space available for erupting teeth and prevents them from emerging into their natural position.

Limitation of orthodontic treatment with braces.

Long term stability is a common problem and treatment will result in relapse unless the teeth are permanently retained. The truth is this traditional approach to orthodontics does nothing to correct the causes of crooked teeth and results mostly in the teeth crowding back into their original position unless glued into place for life. The muscles of the lips and tongue determine tooth position. If bad habits are not corrected, even the best Orthodontic treatment will fail (relapse). Long-term research demonstrates this point.

The orthodontic profession now recognises that although braces can effectively align teeth, maintaining this alignment requires permanent retainers for life. In addition, research has found that damage to roots (root resorption) occurs in virtually every case. Parents are increasingly questioning the effectiveness and safety of orthodontic treatment with braces. However, braces are still needed to correct jaw and tooth alignment if intervention has not occurred early in the growing child.

Relapse -up to 90%.

Relapse occur in 90% of cases when retainers are removed. (*Little, R, et al. vol 93, issue 5, American Journal of Orthodontics, May 1988.*)

We are trying to resolve a biological problem with a mechanical solution.

Retention – for life.

The only way to ensure continued satisfactory alignment after treatment is through the use of fixed or removable retainers for life.

(Little, R, et al. vol 93, issue 5, American Journal of Orthodontics, May 1988.)

Enamel damage

When fixed braces are removed, the surface of the enamel can be permanently damaged due to demineralisation and mechanical damage when removing bracket cement.

(Lovrov, S, et al. vol 68, issue 5, Journal of Orofacial Orthopedics, Sept 2007)

Root damage – 100%.

100% of fixed orthodontic cases can expect root resorption of up to 4mm.

(Darendeliev, A, et al, vol 39, issue 5, American Journal of Orthodontics, May 2011)



Myobrace – How does it work?

Muofunctional therapy is a pre-orthodontic treatment which is focussed around the growing child, age 5-15 years, treating the underlying causes of crooked teeth by correcting poor habits such as mouth breathing, incorrect tongue position, reverse swallowing and thumb sucking.

Myobrace will improve general health and allow children to reach their maximum genetic cranial growth potential and neurological development.

Myobrace incorporates a series of appliances that straighten teeth and develop jaws by teaching the tongue to sit in the correct position, correcting swallowing patterns and teaching children to breathe through their nose normally. The appliances are also designed to put light aligning forces on crooked teeth to straighten them and create a wider arch form. The effect produces not only straight teeth, but better facial development. This reduces the need to use braces, and extractions are rarely needed.

The appliances are worn for 1-2 hours each day, plus overnight while sleeping. Depending on compliance a single course of treatment can take 12-18 months plus a period for retention 4-6 months.

A complete range of activities and training exercises are available and designed to assist in training your child's tongue and lips as well as improve their breathing pattern, improving nasal breathing and oral-facial muscular function.

A successful treatment outcome requires good patient compliance.



There are 3-4 stages of appliances per series that are designed for each age group and dentition. Myobrace appliances are designed to treat children according to their age.

1. J-series (3-6 years)
2. K-series (6-10 years)
3. T-series (10-15 years)
4. B series – Myobrace for braces
5. A series (15+ years)

In the T, B and A-series arch expansion appliances and/or fixed braces may be needed to assist further jaw development and tooth alignment.

Myobrace do not constitutes perfectly straight teeth therefore case finishing may require clear aligners or fixed braces. There is no need for fixed or removable retainers, however as part of the Myobrace series final retention appliances are worn for 4-6 months.

Record Taking

To properly assess your child, study models, photographs, x-rays, and possibly videos of the teeth, face and posture will be required.

After reviewing and evaluating these records, your dentist will write a detailed treatment plan with the exact fee structure specific for your child. This information will then be presented to both you and your child at the evaluation consultation by your dentist.

With models of the teeth, photos, and x-rays to determine the stage of tooth eruption and jaw development, all available information is presented to you and your child and the written treatment plan with your options and possible difficulties is discussed.

Further study models will be required during and at the end of the treatment to demonstrate the changes that has occurred.

Myobrace Activities

The Myobrace activities are a selection of mouth and breathing activities that assist treatment by retraining the tongue and lips and improving breathing patterns. Once your child has more control over their tongue position and breathing, the treatment time will be shorter and their face will develop further. If they do these simple activities daily combined with using the Myobrace, they will be on the fast track to straighter teeth and will allow the Myobrace to work at its best.

The activities should be done every day after wearing the Myobrace for a minimum of 1-2 hours. After 1 hour, the child can take out their Myobrace and choose one activity to do for 2 minutes. They can then put the Myobrace back into their mouths for the next hour to complete their daytime use of the Myobrace.

They can keep a record of their progress by using their progress by using the chart provided in their activities workbook or they can go onto www.myobracekids.com for more information.

Patient Compliance is Essential

All Myobrace appliances must be worn every day, and night while sleeping. Due to the nature of removable appliances, patient compliance is essential. If motivation is a problem, it may be better to use conventional brackets as they cannot be removed by the patient.

Parents and patients must understand that the treatment will only progress if daily use is maintained as instructed. Therefore, their co-operation is important. This is a training process for your child and just like education and sport, a daily committed and persistence is required to obtain results. It also depends on the child's inherent biology for change, so sometimes the results are rapid and other times it may take more perseverance.

Old habits die hard, so the sooner the training program is implemented the better growth benefits and the more permanent result.

Poor compliance or older age can result in need for braces

Dependant on patient compliance and their individual requirements, final alignment may require the use of braces in some cases.

This is usually only needed if compliance is poor or the patient starts treatment too late (12 years or over) Treatment time using conventional braces is usually short, around 4-6 months.

Compliance is essential for success!

Treatment Goals

- Lips together all the time, except when speaking, even at rest and eating.
- Correct tongue position. Tongue on the spot at rest to develop the upper jaw.
- Breathe through the nose. This helps develop the upper and lower jaws and the correct bite
- No lip or mentalis activity when swallowing. This allows the lower jaw and front teeth to develop correctly. Avoid mouth breathing at all times.
- By making these good habits permanent, your child can achieve a permanent change in facial development, tooth and jaw alignment. Once this is achieved treatment is complete. Braces, extractions and retainers can then be avoided if you start early.
- Improving body posture, facial and dental development in the growing child.



Treatment Actions

- Use the Myobrace for 1 hour each day plus over night when sleeping
- Regular daily use is essential
- Myobrace stays in each night
- Do at least one Myobrace activity each day
- Mouth closed when Myobrace is not in use

- Tongue resting in the upper jaw at all times
- Regular monthly visits to the clinic
- Good nutritional hard diet

Important Information

1. All forms of medical and dental treatment, including orthodontics have some kind of risks and limitations. Conventional orthodontics with fully fixed braces has a history of lack of long term stability and complications of enamel and root damage to the teeth. Extractions have been a concern for some time with claims they damage the face and jaw joints (TMJ's). Myofunctional orthodontics attempt to minimise these know risk by not extracting teeth on a routine basis, treating the Myofunctional causes and keeping the use of fixed braces on all teeth to a minimum.

These potential problems should be considered in making the decision to wear orthodontic appliances. For this reason, the TRAINER System and MYOBACE is so important as they do not have these disadvantages. The major risks/limitations involved in orthodontic treatment may include: Decalcification (permanent markings) on the teeth, dental decay, or gum disease can occur if patients do not brush their teeth properly and thoroughly throughout the treatment period. Sugars and between meal snacks should be avoided as much as possible. Extra care should be taken when braces are fitted to keep oral hygiene to its best level. Fluoride mouth wash and extra time spent cleaning your teeth is require when the braces are in place.

2. Treatment time is variable but averages 18-24 months plus a period of retention/observation (4-6 months). Appliances must be used as instructed or the treatment will not work. It is important to seek medical advice for persistent allergies such as asthmas as these problems can prolong treatment and lead to instability if not corrected. A good diet is important, you cannot boost jaw development if the fuel is not correct. See separate dietary advice or preferably seek professional advice.
3. Jaw growth: dealing with growing patients the development of jaws is not always predictable. On some occasions, particularly with older patients, the jaws do not develop as expected. This problem is a myofunctional and biological process and is sometimes out of direct control in treatment.
4. Prolonged treatment times: total treatment time can sometimes be delayed beyond the original estimate. Excessive or deficient facial growth, poor patient co-operation, broken appliances and missed appointments are all factors that could lengthen time and affect the quality of the result.
5. Does it hurt? There is some discomfort in the first few days of fitting of the appliances. This does not usually return any more than occasionally after adjustments and stops within a day or two.

CONSENT DOCUMENT.

Name: d.o.b:

.....
(Parent/Gaurdian name)

PROPOSED TREATMENT PLAN

Approximate Treatment time

Orthopaedics:.....

Orthodontics:.....

Surgical:.....

Other:

Retention:.....

COSTS & METHODS OF PAYMENT

Estimted treatment cost: £.....

The fees for services have been explained to me and are acceptable. I understand that I must pay at each appointment for whatever service(s) has/have been rendered or the amount due as shown on the schedule of payment.

Dr. Grobbelaar has explained to me the proposed treatment plan, the alternatives of treatment and the possible consequences if no treatment is carried out. I have been involved in the formation of the proposed treatment plan and I am in agreement with the plan as described above. I have had an opportunity to ask questions about the condition, the proposed treatment and the available alternatives. I understand that I am able to seek a second opinion on any aspect of my condition or treatment.

QUALIFICATIONS

I understand that Dr Grobbelaar is not on the Specialist Register of Orthodontists but has completed numerous post-graduate courses in orthodontics over many years. Myofunctional therapy is a pre-orthodontic treatment preventing the need for braces and tooth removal. Dr Grobbelaar are a certified Myobrace practitioner and has completed all relevant training with Myofunctional Research Co.(MRC)

PERMISSION TO USE PHOTOGRAPHS & X-RAYS

I consent to the taking of photographs, video and x-rays before during and after treatment, as they are a necessary part of the diagnostic procedure and record keeping. I further give permission for these photographs, video, x-rays and records to be used for the purpose of research, education or publication in professional journals. I understand that I can refuse consent for such use if I so wish

CONSENT

Treatment of human conditions will never reach a state of absolute perfection despite technological advances. We will make every effort to assist you during your treatment, and to keep you fully informed as to the progress of the treatment.

I, (Parent) confirm that this Information and Consent Document, outlining general treatment considerations as well as the potential problems of treatment, was presented to me and that I have read and understand its contents. I also understand that there could be other potential risks or problems that could arise that are not listed in this document. I further understand that, like other healing arts, the practice of Myofunctional therapy is not an exact science, and therefore cannot be guaranteed.

I,(Parent), acknowledge that I have been informed to my satisfaction of all treatment considerations, including benefits of treatment, risks of treatment, risks of non-treatment and the proposed treatment plan identified above and that I consent to undergo that treatment.

SIGNED AT TIME TREATMENT STARTS

Dentist

Date

Parent

Date