

# RISIO CLEAR ALIGNERS **TRAINING MANUAL**



**RISIO**<sup>®</sup>  
clear aligners

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## **An Introduction to RISIO Clear Aligners**

### **What are RISIO Clear Aligners?**

RISIO Clear Aligners are a digital clear aligner system that allows dental practitioners to achieve simple, clean and safe orthodontic movements. It aims to correct the misalignment of teeth, using state of the art computer aided clear aligner software.

This system is designed specifically for GDP's who wish to offer an orthodontic option for their patients.

Any experience level is welcome!

### **How do RISIO Clear Aligners move teeth?**

In accordance with traditional braces, our aligners apply force to the teeth in a controlled and predictable manner, causing the teeth to rotate and move accordingly.

Each aligner will apply small amount of force on the misaligned teeth until the desired Perfect Smile has been achieved.

It's simple. It's easy. It's effective.

### **How are RISIO Clear Aligners made?**

All of our RISIO Clear Aligners are made using state of the art 3D computer aided software, dental impressions are converted into virtual models of the teeth. Our experienced orthodontic technicians will then use these virtual 3D models, along with our specialised software, to register the different stages of treatment and calculate how many aligners will be needed. This will be comprised into a proposed treatment plan.

Once a plan has been discussed and agreed, precision 3D printing machines are used to produce models upon which the series of RISIO Clear Aligners will be made, using a process of vacuuming and trimming. These will hold all the detail to achieve that Perfect Smile!

### **How does RISIO Clear Aligners work?**

#### **1. SCAN**

Using state of the art 3D computer aided scanning software, dental impressions are converted into virtual models of the teeth.

#### **2. PLAN**

Our experienced orthodontic technicians then use these virtual 3D models and our specialised software to perfectly plan the safe alignment of teeth.

#### **3. ALIGN**

Once a plan is agreed, precision 3D printing machines are used to produce a series of RISIO Clear Aligners that are programmed to achieve the Perfect Smile.



## Case Selection

### How our team select the appropriate cases

The RISIO Clear Aligners system is very effective at treating a large range of cases. However, we also know the limitations of the aligners and when cases should be referred.

Our Orthodontic Technicians will be best placed to guide you as to what is suitable for our system, and with their experience, help plan your case.

Once the impressions have been converted into 3D scans on our specialised software, our Orthodontic Technicians will calculate the required movements needed to straighten the teeth.

After this process has taken place the software will upload the information to calculate the number of aligners needed to create the Perfect Smile.

Cases which are considered too complex for our RISIO Clear Aligners will be registered before the treatment planning process. The Orthodontic Technician will contact you directly to discuss the case and a proposed alternative course of treatment, before terminating the case.

If you are unsure whether your case is suitable for the RISIO Clear Aligners then please feel free to contact us to discuss the possibility of treatment.

### What cases can I treat with RISIO Clear Aligners?

RISIO Clear Aligners can be used for:

#### Crowding



#### Spacing



#### Rotations



### When RISIO Clear Aligners can be used

The RISIO Clear Aligners is very effective at treating large range of case; however, we also know the limitations, and when things need to be referred.

### When RISIO Clear Aligners cannot be used

Although the RISIO Clear Aligners can be used to treat a number of misalignment issues, there are also a selection of cases that it is not suitable for:

The RISIO Clear Aligners is unable to perform class correction. The system is able to align the teeth of Classification 2 and Classification 3 cases; however, it will not be able to correct the skeletal misalignment.

We do not recommend using RISIO Clear Aligners in certain extraction cases. If the incisors have been extracted the case will still be possible with the use of our aligner system. However, if the pre-molars have been extracted we prefer to recommend fixed orthodontics, as the use of clear aligners often causes the teeth to tip during the course of the treatment.

In cases of severe crowding extraction is necessary in order to create the space needed to realign the teeth. In these cases, RISIO Clear Aligners would not recommend using this system as cases where extractions are required, are generally too severe for an aligner system.

The RISIO Clear Aligners system is seldom able to treat cases for extruding teeth as fixed orthodontics are more successful in completing this movement. However, an appliance is available based on the aligners design, for this movement if necessary, but it is not a guaranteed success.

In cases where the up-righting of teeth is required, an attachment to the tooth can be used and is occasionally successful in correcting this misalignment. This treatment is however, usually considered beyond the realm of clear aligner orthodontics.



## Insertion of Appliance and Patient Care

### Insertion

The appliances are easily inserted and simply fit over the teeth, much like a retainer. There is no need for adhesive as the appliance gains retention from the existing dentition.

We recommend that you insert the first aligner in the surgery, then remove it so that the patient can practice inserting and removing the appliance themselves. This will help them when it comes to removing the aligner for cleaning, eating and drinking etc.

### What the patient needs to know

The patient will need to know these two main things:

- How long to wear the appliance
- When to remove the appliance

The appliance should be worn for up to 24 hours a day for the best effect, including during their sleep.

The aligners should only be removed for eating, drinking (anything other than water); smoking; cleaning their teeth and the appliance; playing wind instruments and when playing contact sports.

### How to keep it clean

There are two options for keeping the aligners clean:

1. **Mechanical Cleaning:** this involves the patient using soapy water and a tooth brush to manually clean the aligner. Please ensure that the patient thoroughly rinses the appliance before reinsertion into the mouth.
2. **Chemical Cleaning:** this involves using a cleaning solution, such as Retainer Brite, to clean the aligners. For the best effect please follow the instructions as listed on the product packaging.



# Inter-Proximal Reduction

## What is IPR?

IPR stands for Inter-Proximal Reduction and has been used since the 1940's. It is also known as tooth stripping and is most commonly used within the field of orthodontic dentistry.

## Why is IPR needed?

In a number of cases the crowding is so excessive that there is not enough space available to move the teeth into the desired alignment. IPR is therefore needed in order to create this space between the teeth, in order to carry out orthodontic treatment.

## How does IPR work?

This process works by filing down a tooth's enamel between the contact points, to the base of the tooth, to make space for the movement of teeth.

- 1. Expanding the arch** - this process involves the patient wearing a removable appliance which is regularly tightened to force the arch to be wider. This process is primarily painful for the patient, it can cause the teeth to splay and it is a slow method.
- 2. Extraction** - the removal of teeth often creates more space than is required for orthodontic treatment. This method is also not recommended for the use of aligner systems such as the RISIO Clear Aligners.
- 3. Inter-Proximal Reduction** - IPR has been found as the most effective and efficient way of creating spacing between teeth for orthodontic treatment, as it is a quick resolution. It is therefore the preferred method for the RISIO Clear Aligners.

## Different IPR methods

When performing IPR there are two main techniques that can be used.

### 1. Strips

The use of abrasive strips is the preferred method for making small reductions, up to 0.3mm. They are available in a number of different sizes in accordance with the amount of space that is needed. This method enables the practitioner to control the amount of enamel being removed, as well as being able to successfully follow the contour of the tooth. A hand piece is also available for these strips' which allows the same amount of control, whilst maintaining a larger distance from the patient.



### 2. Discs and Burs

Whilst this method has proven to be a lot quicker than the use of strips, it is solely preferred for larger quantities of reduction. For IPR, discs and burs do not provide as much control or accuracy as the use of strips. When using this method the practitioner will need to complete the IPR with the abrasive strips in order to contour the tooth accurately.



It is important to note that when carrying out IPR that the contact points are completely opened, so that the IPR is not performed in a V shape. This would lead to food traps, which can cause rot to the teeth and will prevent the space from closing. If the space is unable to close it will put treatment times and costs up, as the IPR sites will need to be revisited.

## Talking to Patients about IPR

When talking to your patient about IPR we recommend that you provide them with information as to why it is needed, what it will involve and the method you intend to use. This should provide the patient with reassurance as to the process. For effective IPR it is important that the patient is relaxed and at ease. If you require more patient information, the British Orthodontic Society offer a Patient Information Leaflet on IPR which can be found at: [www.bos.org.uk/](http://www.bos.org.uk/)

## Consent

Before beginning IPR please ensure that you have fully described the treatment process to the patient and have obtained their consent. If you do require patient consent forms, please contact the RISIO Clear Aligners team.

## Risks

As with any procedure there are risks that can incur. The key risk in creating a V shape at the base of the tooth as this can lead to food traps. Continually, if too much enamel is removed it can damage the tooth, and in extreme cases it can result in the loss of the tooth. Due to the removal of enamel the teeth can also become sensitive. However, if carried out correctly, IPR is a safe and reliable technique for orthodontic movements.

## IPR in RISIO Clear Aligners cases

As part of our treatment plan RISIO Clear Aligners will require the practitioner to carry out all prescribe IPR before the placement of the first aligner.

## Disclaimer

This is a Guidebook for carrying out Inter-Proximal Reductions and should be used as a reference only. All responsibility for the results of the treatment for the above patient lies with the Dentist providing the treatment. ALS Dental and RISIO Clear Aligners bear no responsibility for the consequences from providing IPR. If IPR is performed incorrectly it is not the responsibility of ALS Dental or RISIO Clear Aligners.

**If you have any questions or queries, please contact the RISIO Clear Aligners team before beginning treatment.**

## Bite Raisers

### What are Bite Raiser?

Bite raisers are composite dots placed on the occlusal surface of a tooth in order to open the patients bite.

### Why are Bite Raiser needed?

A bite raiser is needed when the patient has interlocking dentition or a cross bite, to facilitate the orthodontic movements. This will allow the teeth to move freely and independently of each other.

### What do Bite Raisers look like and How do I fit them?

The bite raiser will be practically unnoticeable in the patients mouth. Using a template provided by us, tooth coloured composite will be placed inside the template and cured directly onto the tooth. This is the same method as composite attachments. Dentist will need to insert the aligner to ensure the composite is in the correct place the aligners will have these areas voided to ensure a good fit.

It is important to note that if the patient is only undergoing single arch treatment, a retainer will need to be worn on the opposing arch to avoid the possibility of over-eruption.

### Advantage and Disadvantages

#### Advantages

- It will allow the movements to work effectively in a controlled manner.
- Aesthetics will not be compromised as the composite is tooth coloured and will usually placed on the posterior teeth.

#### Disadvantages

- An opposing retainer will need to be worn at all times if the treatment is only on a single arch.
- The patient will not be able to remove the composite and will therefore have an open bite without the aligners in place this can cause some discomfort and may affect the patients ability to chew.

### Talking to Patients about Bite Raisers

Talking to Patients about Bite Raisers  
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## Composite Attachments

### What is a Composite Attachment?

Composite attachments are tooth coloured dots placed on the buccal, labial or lingual surface of a tooth in order to aid movement and retention.

### Why is a Composite Attachment needed?

A composite attachment is needed to help facilitate the transition of a particular tooth if a lot of movement is required during orthodontic treatment. A composite attachment can also be used to aid retention of the aligners if the patient has small teeth.

### What does a Composite Attachment look like and how do I fit them?

Tooth coloured composite will be placed inside the template provided by us, as prescribed on the treatment plan. The template will have 'dot' like voids where the composite will sit, this will then be placed inside the mouth similar to fitting an aligner and cured into place. Once cured, the template is gently removed and any excess material can be cleaned up. Once the composite has been cured the Dentist will need to insert the aligner to ensure the composite is in the correct place the aligners will have these areas voided to ensure a good fit.

A full overview of the Composite Attachments required can be found in your Treatment Plan and can be discussed with our onsite team.

### Advantage and Disadvantages

#### Advantages

- The placement of a composite attachment will help to speed up the time required for treatment.
- In some cases the teeth will not be able to move without the use of a composite attachment.

- It is a pain free and will not damage the patients teeth.
- It will allow the movements to work effectively in a controlled manner.

#### Disadvantages

- In some cases having a composite attachment can lead to difficulty in the insertion and removal of aligners.
- Although composite is a discrete material is will be visible if attachments are required on the anterior teeth.

### Talking to Patients about Composite Attachments

When talking to your patient about composite attachments we recommend that you provide them with information as to why it is needed, what it will involve and the method you intend to use. This should provide the patient with reassurance as to the process. If you require more patient information, the British Orthodontic Society offer a number of Patient Information Leaflets on Orthodontics which can be found at: [www.bos.org.uk/](http://www.bos.org.uk/)

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## RISIO Clear Aligners as a Treatment Option

### As part of your dental practice

The RISIO Clear Aligners can add another dimension to your practice and the services you offer!

As a dentist you will be aware that dentistry has progressively transitioned towards a cosmetic frontier, with a rise in requests for teeth whitening, veneers, smile makeovers and invisible orthodontics. The emphasis on aesthetics has forced dental practices to offer such private services in order to keep up with the demand. By having RISIO Clear Aligners as part of your practice you will be able to offer a brand of cosmetic dentistry, as well as orthodontics!

Through offering RISIO Clear Aligners you will be able to compete with other local dentists who offer similar services, with the added advantage that your clear aligners cost less than the others. Also, in providing this treatment option, it is possible to boost your intake of private patients.

- **Treat more patients**
- **Get better results**
- **Reduce your lab fees**
- **Maximise your profits**



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