



Dr Luis Carrière. (Photograph: Luca Scalzo)

Interview: I try to think of solutions for common problems

By Nathalie Schüller, DTI
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Dr Luis Carrière is the inventor of both the Carriere SLX Self-Ligating Bracket System and the Carriere Motion 3D Appliance. He travels the world teaching at several universities and lecturing internationally on these products and orthodontic topics. Carrière maintains a private practice in Barcelona in Spain. During the 2019 Annual Session of the American Association of Orthodontists in Los Angeles in the US, Carrière presented three new products developed through his collaboration with Henry Schein.

Dr Carrière, when we met last year at the European Aligner Society congress, we talked about the ability of clear aligners to speed up the treatment process. You are now presenting new products, the Carriere SLX 3D Bracket System, the Carriere M-Series Wires and the SLX Clear Aligner System. Do these new products help to speed up the process?

I feel that one of the most important trends in orthodontics today is the provision of premium quality. Nowadays, more and more companies are producing aligners and selling them directly to the consumer, bypassing the orthodontist. This is of course jeopardising how an orthodontic treatment should take place, one in which the patient is protected at every level of treatment.

Orthodontic treatment is not only about aligning teeth and establishing good occlusion. Teeth are connected to the patient by bone, being anchored in the maxilla and the mandible. If the relation of the mandible and maxilla is incorrect, the temporomandibular joint structure is disrupted, which will affect the patient in many ways, including clicking, pain and airway obstruction and the subsequent effects on well-being, life expectancy, etc. The expertise of a specialist is therefore vital.

The Motion appliance adopts the Sagittal First philosophy. Solving the sagittal problem will make it easier and simpler to finish a case. If we additionally use self-ligating high-end brackets combined with a smooth and steady archwire sequence that load physiologically friendly forces, we will be able to avoid compression of the blood vessels, which would diminish the blood flow in the area of movement. We start 95% of our cases with Sagittal First to adjust the sagittal condition, then

switch to the new Carriere SLX 3D Bracket System or aligners. This combination is intended to simplify the overall orthodontic procedure.

Henry Schein now has its own aligner system, right?

Yes, the SLX Clear Aligner System, which reduces and can even eliminate the need for attachments in most cases. Attachments can still be placed if the dentist feels more comfortable placing them, but they are not necessary.

Starting treatment with the Motion appliance for both approaches, brackets or aligners, will give the patient the option to decide whether he or she wants brackets or aligners right after the sagittal correction.

Isn't the orthodontist in a better position to decide which is better, brackets or aligners?

It used to be so, but using the Motion appliance to convert every case to a Class I posterior occlusion at the beginning of treatment makes it possible for every case to be treated with either brackets or aligners. We have solved the majority of complexities that previously prevented treatment with aligners. Therefore, the patient has the choice of treatment.

Wouldn't most patients more likely be drawn to aligners? Is there thus any point in offering brackets, besides perhaps lower cost?

The SLX 3D brackets come with a new wire sequence, the M-Series Wires with the innovative 3-Wire Sequence. The sequence is designed to enable a simplified wire progression protocol, to reduce the number of wires used and finish cases in about 12 months in total, including the Motion stage.

After the Motion process, there are three options for the next step in treatment: the SLX 3D metal bracket, which is less expensive, the SLX 3D clear bracket or the SLX Clear Aligner System. We do not charge more for aligners versus clear SLX 3D brackets; we don't even do so when we start with the Motion appliance. The motivation for choosing brackets over aligners is that the new Carriere SLX 3D bracket together with the M-Wire Sequence makes the treatment very fast and efficient. Many patients choose brackets because the treatment is indeed so effective. It is just amazing how drastically you can cut the treatment time with an organised protocol and the appropriate tools.

If one uses the Motion system, do you still see a need for acceleration devices? To me, one of the most interesting aspects of using the Motion appliance is that once you have succeeded in obtaining a Class I occlusion, there is a space between the incisors. So, when we use aligners, we can change them every five days instead of every ten. It is therefore not really necessary to use acceleration devices. If we have a patient who is really in a hurry and wants to be treated to get results as fast as possible, then we use an accelerator, an alternative to switching aligners more often. Personally, unless we have such a patient, I don't find it necessary to use acceleration devices, but it is nice to offer the patient all the possibilities and alternatives available.

Do you think many orthodontists use the Motion appliance or a similar system to correct malocclusion?

As an example, there are 9,000 orthodontists in the US, over half of whom have used the Carriere Motion 3D Appliance, totalling an actual market share of 42%. Today, Motion 3D is the leading Class II and Class III appliance.

What is the Happiness Revolution?

The Happiness Revolution views treatment as balancing the patient's face, its beauty, pain related to a sore joint when it is not in the correct position, the patient's airway for better breathing and of course the dentition. If you consider all of these aspects to find a balance when treating a patient, you will have not only a shorter, smoother treatment but a happy patient too.

What about airway and breathing problems? Are these related to certain classes of malocclusion?

These problems require multidisciplinary treatment. An orthodontic treatment can be a solution for certain functional and skeletal obstruction problems, such as problems due to anatomical components or maxillary-mandibular relation, but other reasons, like the tonicity of the airway musculature, fat around the airway and soft-tissue anatomical deformities, will also narrow the airway, and other medical specialties will have to act at those levels. Therefore, the orthodontist has to take care of the part he or she is responsible for and find the best solution to obstruction problems. I believe that the treatment of obstructed airway will soon be driven by multidisciplinary teams in which the orthodontist will have a very important role.

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What motivates you to come up with new products? Maybe the knowledge of something that is lacking, your drive, a need to always challenge yourself?

I love orthodontics. I love to be able to find solutions to help improve the lives of patients or colleagues. I have some ability in identifying new concepts, and I have a passion for creating new things. I see a problem and think about it until I identify a possible solution. I try to think of solutions for common problems and not only in the orthodontic field. To me, it is enjoyable.

Do you have anything in preparation for a new Carriere revolution?

All the time; we always have something on the back burner. Innovation is at the core of Henry Schein and we are committed to innovating as much as possible. What drives our innovations is the goal to simplify, to minimise the complexity of the orthodontic treatment and to try to obtain predictable treatment results. Our objective is to be successful in solving not only the dental problem we are trying to address but also related problems.

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