Making an impression

In a bid to meet the increasing demand for affordable, comfortable and clear orthodontic treatment, clinicians are required to take impressions more often. Dr Andrew McCance strives for perfection

Leading orthodontic treatment systems mean GDPs require good-quality impressions to facilitate the best results, so it’s worth making sure you are familiar with the best method. Put yourself in the place of the technician poring over an impression in the laboratory. As you can probably imagine, imperfections and voids simply make doing a good job utterly impossible.

The best results

After a comprehensive appraisal of the qualities and results of various materials, it is fair to say that using a two-part putty and wash Vinyl Polysiloxane material produces the best impressions. Using high-shore-strength heavy putty with a separator sheet provides the ideal foundation for the wash, and the separator sheet prevents the teeth leaving an imprint in the heavy putty. If a lighter putty is used, it can cause poor retention in the tray, and increases the chances of the patient biting right through the putty and into the tray, distorting the leading incisal edges and cusps.

When you mix the putty, be aware that any residue on your hands can adversely affect the setting. Don’t wear gloves, and make sure that your hands are clean. When placed in the tray, make sure the putty fully covers the buccal and labial segments. Your laboratory will want to see good extension of the putty lingually and around the back molars. Also ensure that you are using the right-sized tray for the patient, too – the provider of your orthodontic system should supply you with a variety of sizes.

Cover the putty with a separation wafer that has been cut to size. Once the tray is introduced into the patient’s mouth, you need to hold it firmly in place for about two minutes to ensure the putty sets. Distortion will occur in the heavy body material if the impression is removed before setting.

Adding the wash

Once the tray is taken out of the patient’s mouth, remove the separation wafer. Now you can add the wash. Removing the separation wafer will give the wash an even 1mm space to flow. Use a generous amount, and place the tray back in the patient’s mouth. If you don’t use enough, you could end up with insufficient detail on the impression. Again, you must hold the tray firmly in place until the wash has set. If the tray is removed before setting is complete, distortion and drag will occur right across the occlusal surface, resulting in an unsatisfactory impression. Be aware, during this stage, that bubbles in the wash can cause the impression to be inadequate. The process is straightforward, and by keeping the above guidelines in mind, you should always be able to furnish your laboratory specialists with top-quality impressions. With good extension of the putty lingually and around the back teeth, you will have a good foundation for the production of satisfactory impressions, and remember: perfection is impossible to achieve in real life, but it doesn’t do you any harm to strive for it.