

borders. Therefore, and adhering to the advice of Nandini *et al.*, [17], as a precautionary measure, the dental arch must be examined carefully before taking impression. They elaborated further that, if there are existing fixed partial dentures, it is advisable to block out the pontics (artificial tooth/teeth) with wax to prevent tearing of the impression material in these regions.

7.4.2 Mixing and Loading Alginates

Generally, commercial alginate used for dental impressions is usually supplied in a container containing the powder alginate. A scoop is provided by the manufacturer for accurate measurement of the powder, and a cylindrical plastic measuring cylinder needed to gauge the water proportion. However, caution must be taken against the use of water with high amount of mineral, as it would invariably affect the accuracy as well as the setting time of the alginate [17]. In such cases, demineralized or distilled water will be much more appropriate to use [38]. Mixing is often initiated by adding measured quantity of water into a clean bowl; thereafter, an accurate amount of powder is added. Mixing then commences by stirring vigorously using a spatula until a creamy consistency is achieved. In order to control the time required for manipulation, the use of cold water is recommended while the setting time of the mixture can be manipulated by varying the temperature of the water [17].

In terms of loading the mixed alginate, care must be taken to ensure that the desired amount of alginate is loaded onto the selected tray. It is highly advisable that the tray be filled with the impression material up to the borders. More so, excess material around the periphery should be removed with spatula. In addition, the surface of the alginate should be smoothed with a wet gloved finger [37]. While these protocols are much more suited for alginates in powder form, recent development has introduced two-paste form of alginate, which is more convenient to mix. The advantages and benefits of the two-paste form of alginates have been discussed (see Section 7.3.2.5).

7.4.3 Preparation of the Oral Cavity before Impression Taking

One of the drawbacks of alginate impression material mentioned in this chapter is its tendency to tear upon removal. Hence, to prevent alginate from tearing upon impression removal, the oral cavity (mouth) must be adequately prepared. Firstly, in order to minimize air-blows, the occlusal surface of the teeth must be blown with an air string to remove debris and saliva [17]. Secondly, adequate care must be taken to ensure that the mouth is not completely dried before taking the impression with alginate material. This is very important, because when the surface is dried, alginate easily