



HIGH-FLYING DENTISTRY

DENTIST MEETS DENTAL TECHNICIAN

Whenever a dentist is given the go ahead to produce some prosthesis or dental appliance for a patient, he or she takes a number of silicone impressions.

These, along with a list of instructions, would be given to a dental technician within a laboratory set-up and converted into hinged stone models to replicate your mouth for laboratory use. Records and instructions would include:

1. *Colour:* current tooth colour or projected colour following tooth whitening. At times, immediately after the impressions are taken, the patient's teeth are laser whitened to achieve the new tooth colour and have the new teeth in production to match the new colour of the whitened teeth.
2. *Photographs:* Frontal and side-photography show:
 - Area of tooth exposure on smiling and at rest
 - Area of gum exposure on smiling and at rest
 - Support of facial tissues including lips and cheeks
 - Side profile exposing tooth angulation.
3. *Material of choice:* there are many materials available on the market mostly falling under conventional metal-ceramic restorations or all-ceramic restorations which can be lithium silicate or di-silicate and zirconium oxide better known as zirconia. Patients, together with the dentist's advice, must make the decision and choose their preferred specialised material.
4. *Facial records:* facial profile dimensions often change with time. Loss of vertical height due to severe tooth wear reduces the height of the lower face from the nose to the chin, disproportioning the upper and lower face. This record is also recorded and transferred to the models.
5. *Description of case:* Depending on the complexity of the case, a brief or detailed description of the requirements and patient wishes is noted. For example it may be planned to:
 - Straighten the teeth
 - Elongate or shorten the teeth showing more or less tooth area
 - Bring the teeth further out towards the lips/cheeks, increasing the width of a narrow arch into a more defined rounder arch
 - Retrude or procline teeth to give different angles
 - Close spaces such as midline diastemas (spaces in between the front teeth)
 - Achieve a more symmetrical look.
 - Remove sharp pointed teeth and have them more squarish, if so requested!
6. *Ready dates:* This may vary considerably from one laboratory to the other. Whether the teeth are

to be fixed or removable, different technicians use different techniques for production. The conventional method of production is using the lost-wax technique requiring a minimum of one day. This method of production is well known and used worldwide. It is a very labourious method requiring time and effort. It is, however, not very environmentally friendly as it consumes a lot of energy and leaves much waste. The vast majority of laboratories worldwide are fast moving away from this and shifting to In LAB CAD CAM systems capable of milling teeth out of pre-fabricated blocks. This reduces timeframes tremendously whilst still allowing for fine customised detail. This method caters for procedures such as 'teeth in one hour'.

The above detail is of outmost importance to the technician. The dentist must forward this information, have a discussion with the technician and make sure all is understood. The patient should also have the option to have a look at their work being constructed or designed in the laboratory, allowing for modifications, especially if the technician is using In LAB CAD CAM software. Patients must know all about their future teeth, after all they are paying for it.

Ask your dentist! 



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