Making plaster models for EPG palates

- In order to obtain an EPG artificial palate for a client, a model (plaster cast) of the client’s upper palate and teeth is required (figure 1). A qualified dentist should take an impression using high quality alginate to obtain an accurate record of the client’s upper palate and teeth.

- The requirements for an EPG palate are somewhat different from those of general dental plates. Specifically, the impression should include the gum area immediately behind the posterior molars. This is to accommodate the passage of leadout wires from the EPG artificial palate.

- Also the impression should be taken as far back as is comfortable for the patient; at least as far back as the posterior tuberosity.

- The stone model may be left untrimmed. If it is trimmed then the posterior edge should leave the posterior tuberosity and the gum area behind the rear molars.

![Figure 1: Lefthand model is over-trimmed; Centre two models reveal shape of gum behind rear molars and permit accurate fitting of leadout wires exiting behind the rear molars; Righthand shows “Articulate” style.](image)

Stone plaster models (see figure 1) should be packaged securely and sent to:

**Reading palates**
Currently no manufacturers of this type of palate

**Articulate palates**
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Estimated cost £350 for “Articulate Palate”. Please contact the palate manufacturer beforehand to confirm price and delivery lead time. Note: If you are planning to have a large number palates made please contact them at the earliest opportunity.

Articulate palate Advantages;
- Better velar closure patterns.
- Lighter
- Thinner
- Cheaper
- Shock resistant
- Incorporates signal contacts on buccal side of palate so no need to hold handgrip
- Less likely to cause gag reflex (anecdotal evidence but not proven)
- Better grip to teeth
- Guaranteed integrity of connections (i.e. you won’t find that individual contacts stop working unless the cable is torn)

Articulate palate Disadvantages:
- Exposure to heat (direct sunlight, radiators, hot water) may cause the palate to change shape slightly and become ill-fitting
- Can’t be trimmed to take account of movement in a subject’s teeth over time.
- Rigid exit cables are slightly bigger and may interfere with lip-rounding more so than the traditional palate cables.
- Covers the teeth so will block gaps in the teeth that a speaker might use to create fricatives. e.g. /θ/ -> dental stop
- Currently available in one size to suit 12yrs+