Making a good impression

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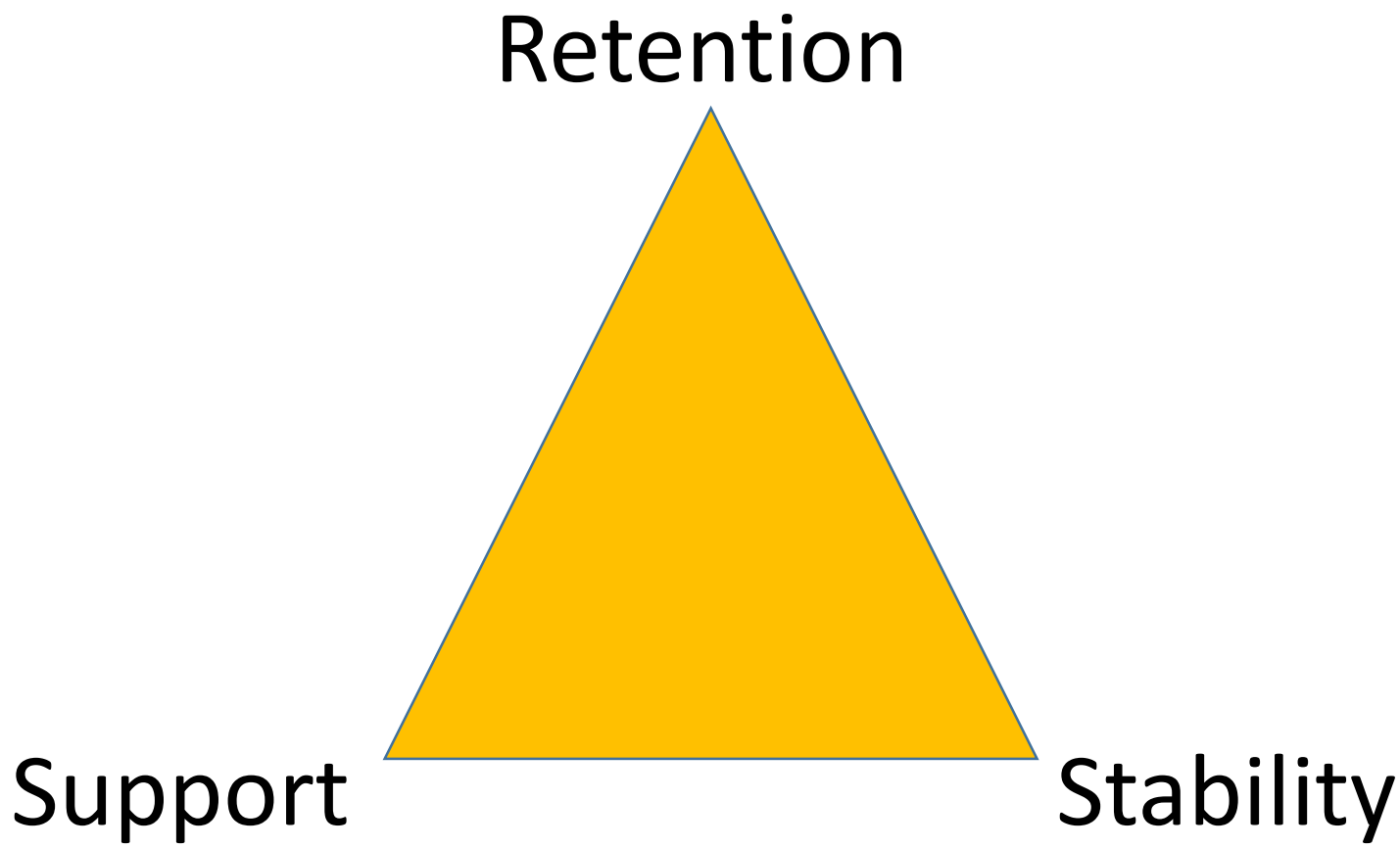
Complete denture success: the ‘golden triangle’



An accurate record of the denture bearing tissues is needed to produce well supported, stable & retentive dentures

Making a good impression

Focus:

- Edentulous impressions
- Any evidence
- Technical & clinical guidelines
- Practical procedures/ materials

Monet [impressionist]

Making a good impression: Is there any evidence for what we do?

- Low level of evidence; expert opinion
- Standard teaching: 2 stage approach to edentulous impressions
- Although some studies show that single stage impressions produce similar outcomes
- Focus on 2nd stage of 2 stage approach to impressions

Making a good impression

Good impressions are made and not taken!

- We need guidelines that we can use to build a good impression
- The British Society of Prosthodontics produces useful guidelines that can be applied (BSSPD.org)
- Rely on a knowledge of edentulous anatomy and the accepted parameters for denture extension. They do not specify the impression materials to be used – this is left to clinician's choice.

Making a good working impression

- Starts with a good primary imp
- Second imps use special [lab made custom trays]
- Separating the impressions into 2 distinct steps (first & second imps) allows the clinician more control & is less fatiguing!

Making a good impression: ‘It’s just a first impression’

Maxillary:

1. Residual ridge, tuberosities, hamular notches
2. Functional sulci & frenae
3. Junction of hard & soft palate

Mandibular:

1. Residual ridge & retromolar pads
2. Functional sulci, fraenae, external oblique ridges
3. Lingual sulcus, lingual fraenum, mylohyoid ridge, retromylohyoid area

Making a good impression: Summary of relevance of recording anatomical characteristics

anatomy	retention	stability	support	comment
Residual ridge	Yes if useable undercut	Yes if well formed	Yes	Guide tooth position
Hard palate	Yes	Yes	Yes	Surface detail
Incisive papilla	no	no	no	Guide to tooth position
Fovea palati	Yes	no	no	Guide to postdam location
Hamular notch	Yes	no	no	Posterior seal
Sulcus/frenae	Yes	Yes	no	peripheral seal assists stability

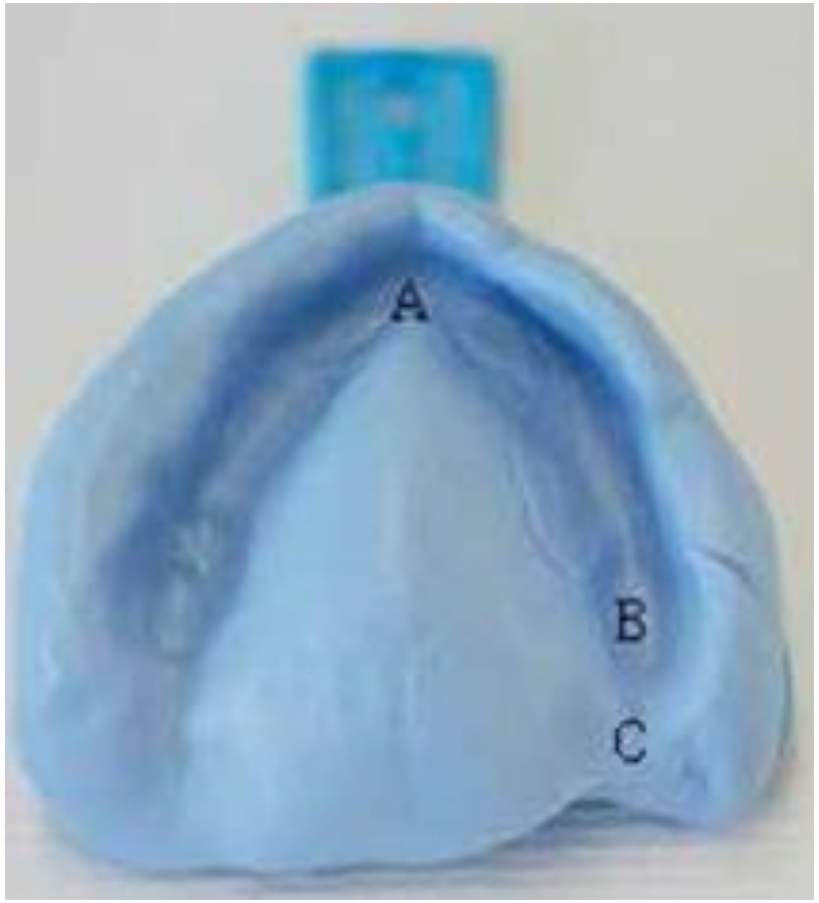
Making a good impression: Summary of relevance of recording mandibular anatomical characteristics

anatomy	Retention	stability	support	comment
Retromolar pads	maybe	yes	yes	Posterior seal
Retromylohyoid fossa	yes	yes	no	no
Buccal shelves	no	no	yes	Importance of tray
Mylohyoid ridge	yes	yes	no	Can contribute seal
Lingual sulcus	Not really	yes	no	Overextension = instability

Making a good impression. ‘First impressions are always unreliable’ Franz Kafka

To make them more reliable:

- Chose a rigid disposable stock tray that covers the anatomical landmarks & gives approx. 4mm space
- Use a viscous mix of alginate for the impression if there is a ‘reasonable’ firm ridge
- For more resorbed ridges use PVS ‘soft putty’
- For displaceable ridges use a thinner mix of alginate
- For ‘gagging’ patient use compound



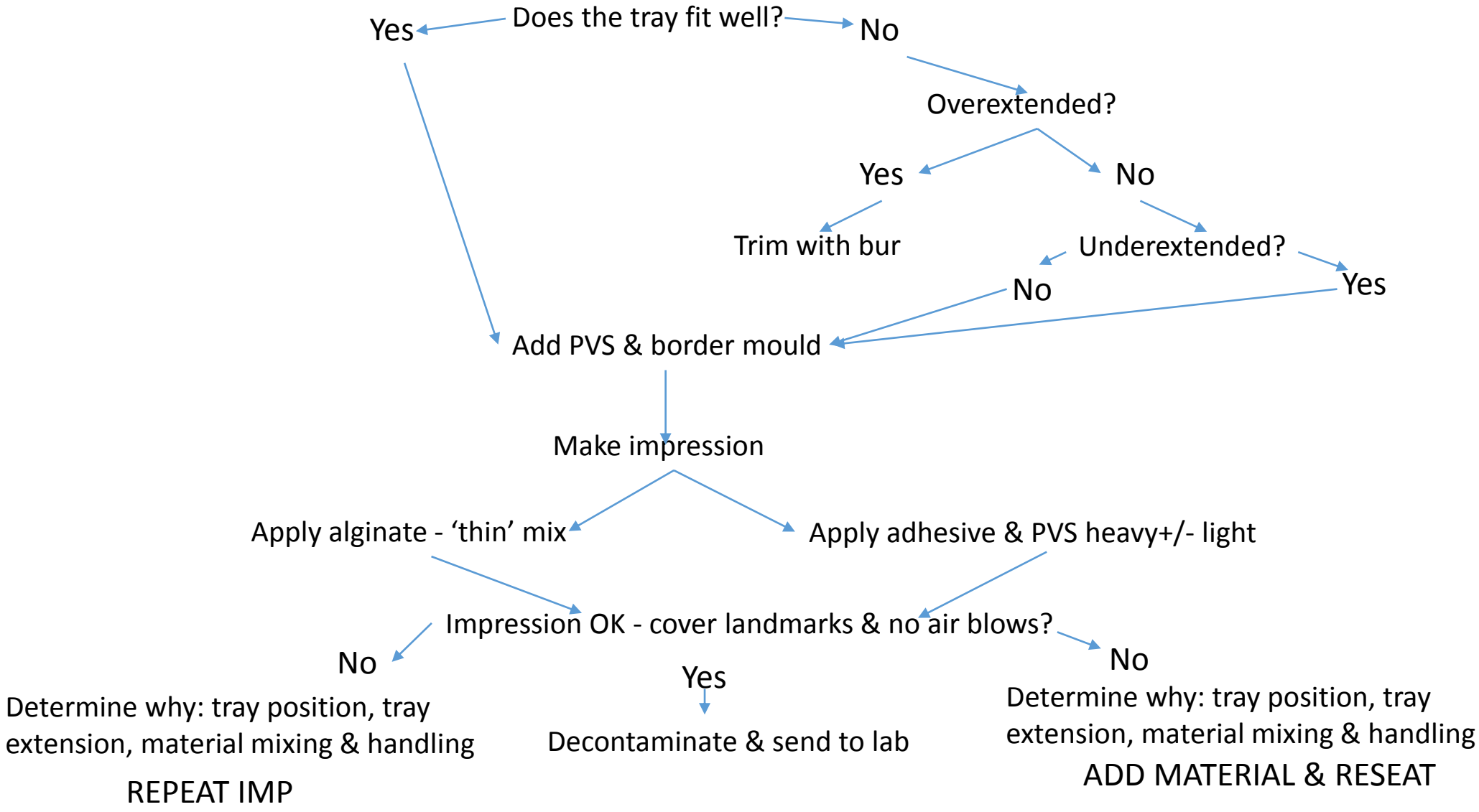
Making a good impression: Second imps, material choice

- Not as important as it's handling characteristics
- Border moulding material should be 'self supporting' and 'mouldable'
- Chose impression material that flows and will record sufficient surface detail [more important in upper denture]
- For reasonable upper ridges [class III] thin mix of alginate OK
- For resorbed ridges 1.5mm spaced for PVS Heavy or regular+/- light body PVS wash
- Alginate can't be added to so any significant deficiencies mean a repeat impression but the setting time is shorter
- Silicone materials can be added to, so impressions can be 'built' and deficiencies corrected but the setting times are longer.

Making a good impression: Second Imps ‘The devil is in the detail’ Flaubert

- Appropriately spaced special tray
- Upper add border material over tray edge & buccal surface in tuberosities and anterior aspect, along posterior border. Manipulate cheeks & lips
- Lower add to tray edge/lingual areas distolingually. Mould by patient movements
- Load but DO NOT OVERLOAD the tray
- Seat the impression slowly doing this too quickly builds up pressure [Hyde et al J Pros Dent 2008, 384-389]

Second impression: ‘mind-map flowchart’



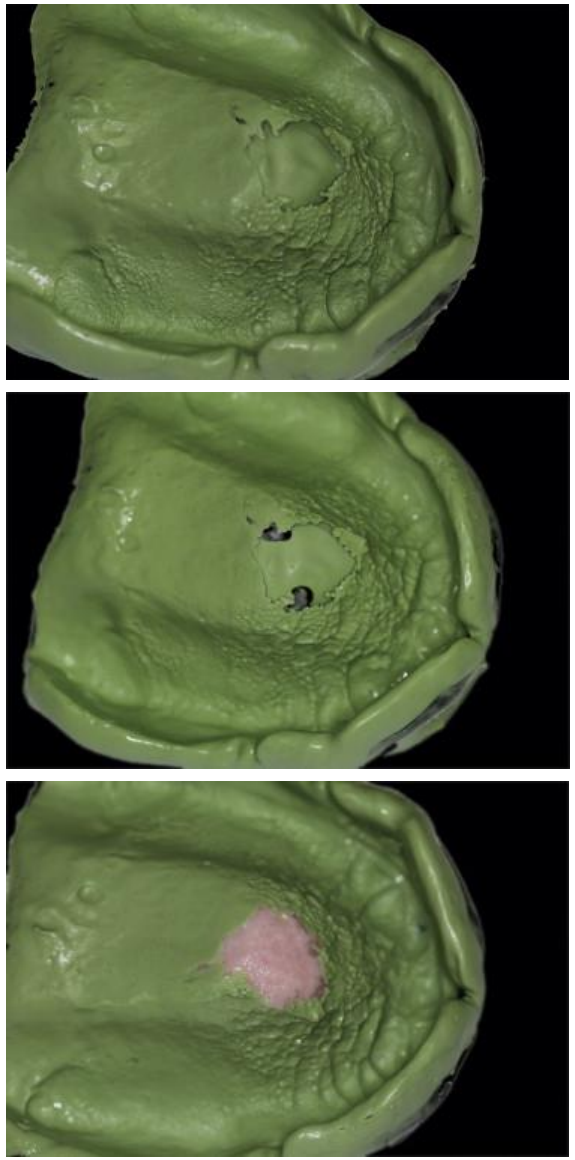
Making a good impression: ‘trouble shooting’ air blows

avoiding

- prepack/syringe mix into undercuts/deep palate

managing

- Can’t add alginate to alginate! Small blows fill with wax, large blows repeat impression (aargh!)
- Silicone add silicone to deficient areas & reseat. Large blow in palate can create 2x holes & syringe PVS when imp seated



Making a good impression: ‘Hands on’

Lower imp

- Check tray fit in relation to sulcus and anatomy
- Add border material to L & R disto lingual using bite reg.
- When set remove & add silicone to cover fit surface of tray.
- No need to overload tray remember the space is 1.5mm

Upper imp.

- Check tray fit in relation to sulcus, palate coverage, & anatomy
- Add border material to tuberosities & along posterior border
- When set remove.
- Mix alginate [adding a bit more water to reduce viscosity] add to fit surface of tray, again no need to overload the space is 3mm