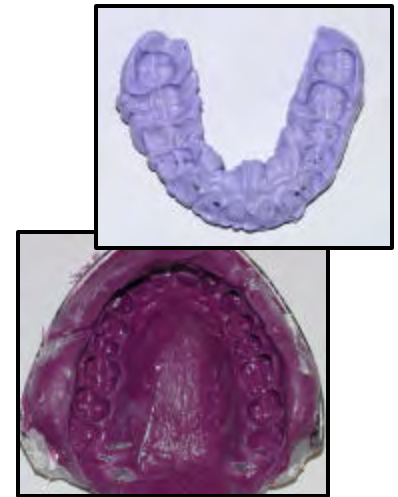


Guide for PVS Troubleshooting Bite Registration and Impressions

By: David A. Chenin, DDS



Guide for PVS Troubleshooting

Summary of Topics

Bite Registration

Types

Defects

- **Wrong material**
- **Incomplete arch captured**

Impression

Types

Defects

- **Wrong material**
- **Incomplete Capture of Terminal Molars**
- **Folds/Wrinkles**
- **Impression Separation**
- **Bubbles / Voids**
- **Unclear Surfaces**
- **Impression Outside confines of Tray**
- **Push-Through**

This registration material is recommended

Regisil Rigid®
Dentsply/Caulk (PVS)



....or any other PVS bite registration material is ok to use.



Blu-Mousse®
Parkell (PVS)

These registration materials are not recommended

Wax, aluminum impregnated wax, wax with aluminum strip, wax mixed with PVS, etc.



INCOMPLETE ARCH



Good: Complete arch



This impression material is recommended:

Aquasil® Ultra Monophase
Dentsply/Caulk (PVS)



....or any other PVS impression material is ok to use.



Dimension®
ESPE (PVS)

These impression materials are not recommended

(Polyether)

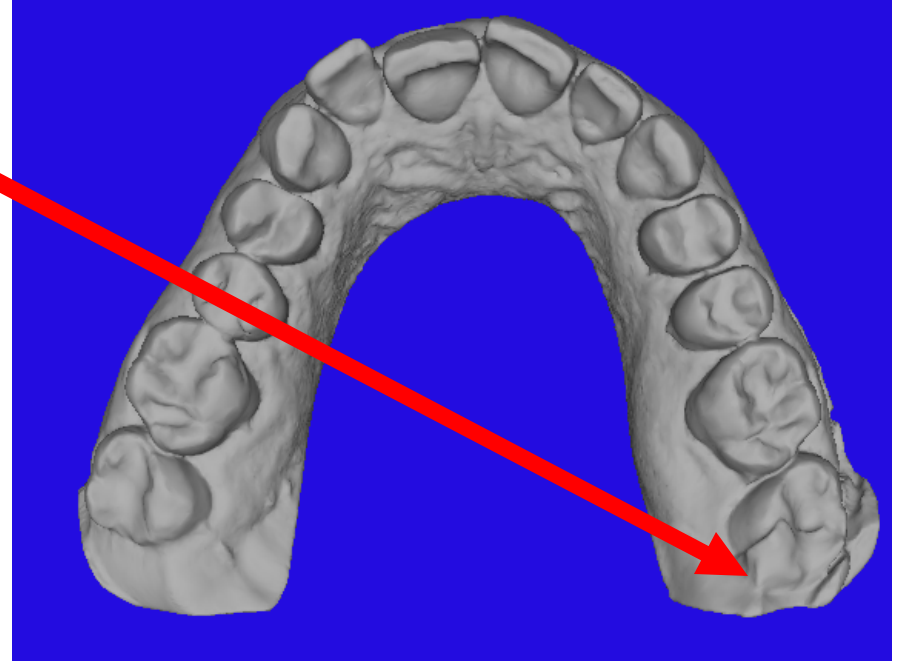
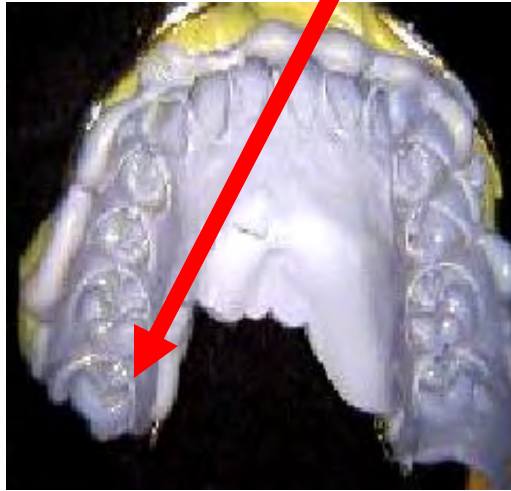


(Alginate)



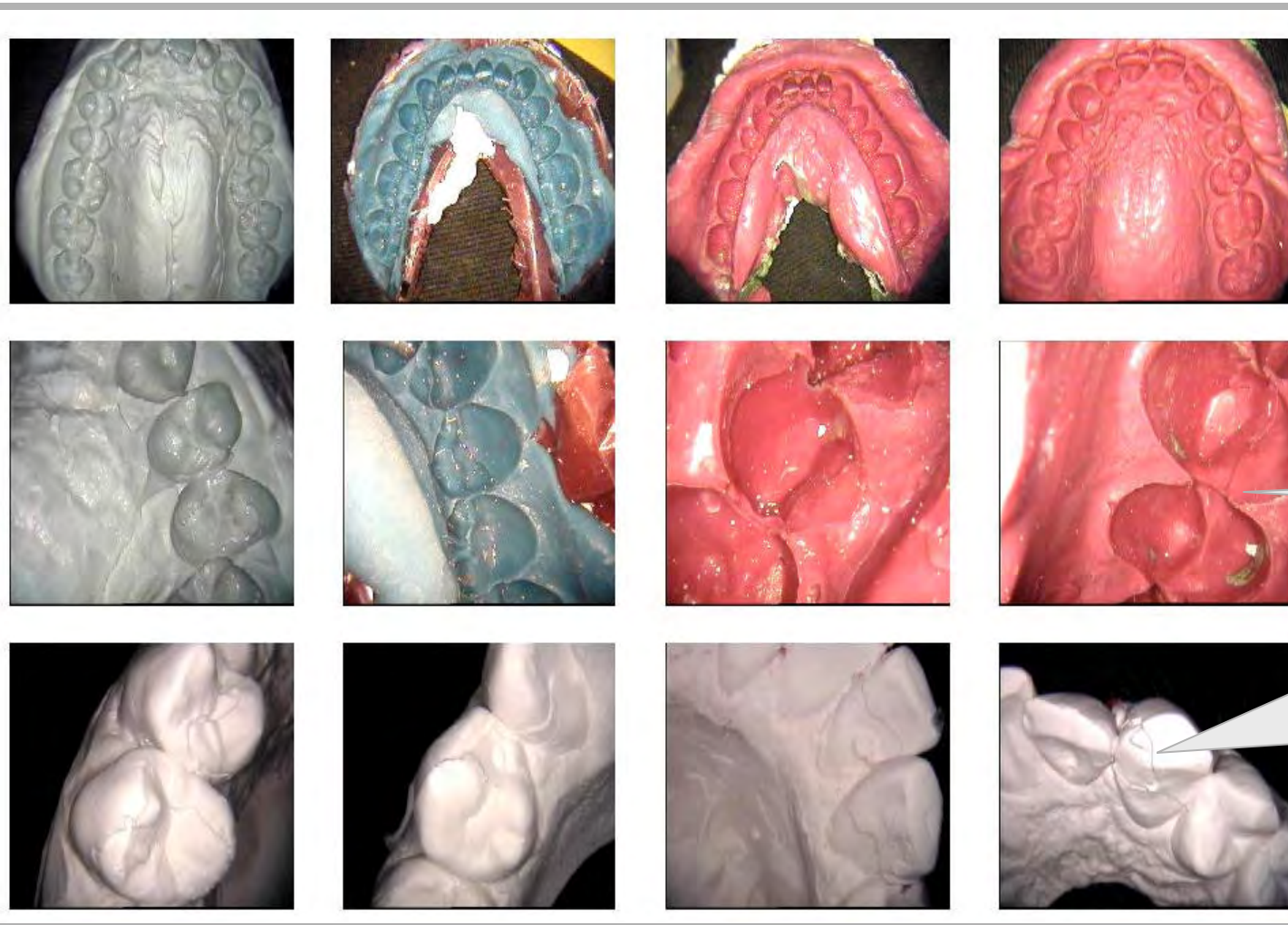
INCOMPLETE CAPTURE OF TERMINAL MOLARS

Most Common Defect



- Prevent by seating impression tray from the posterior to anterior.
- Use putty in posterior region of impression tray to prevent PVS from flowing posterior. (Refer to Invisalign 'Tips and Techniques Guide')
- Use larger size impression tray.

FOLDS / WRINKLES

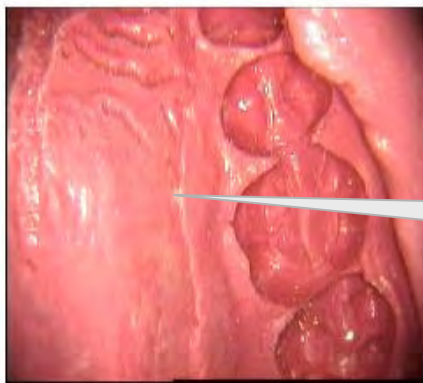


Fold

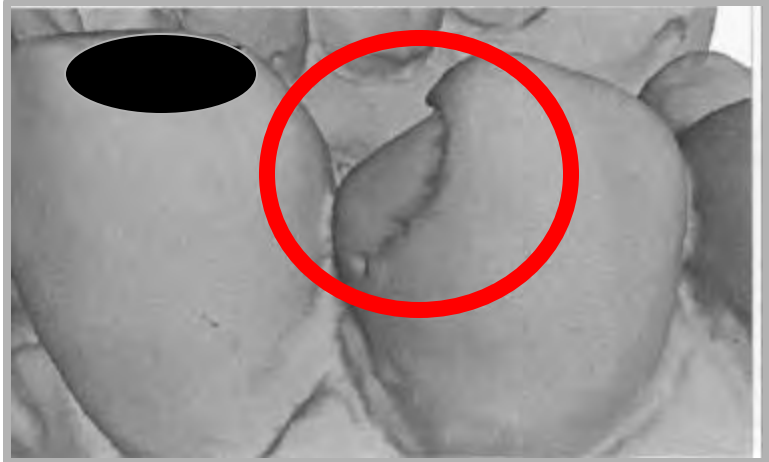
A line will
be seen in the
impression.

- Usually caused by tray shifting during seating or during material set.
 - Avoid by keeping tray still during setting.
 - May be caused by patient producing excessive saliva.
- Have the patient rinse with alcohol-based mouth rinse 3 minutes before impression taking (alcohol may temporarily dry out the mouth).

FOLDS / WRINKLES



Fold



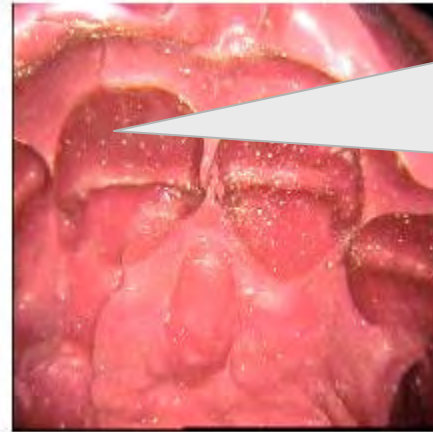
•Caused by relining the impression



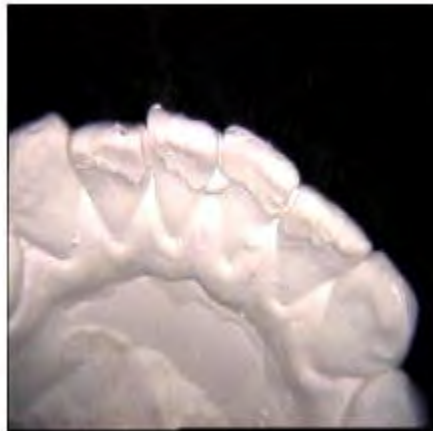
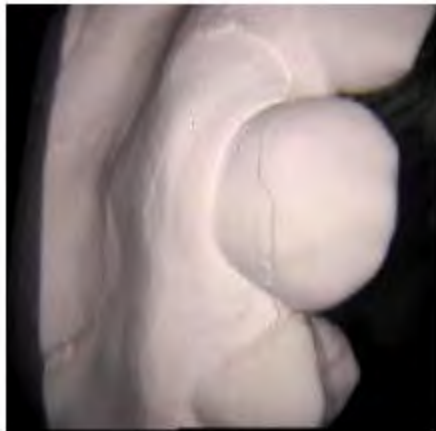
A line will be seen in the impression.

•Avoid this problem by not relining impressions, just take a new one if you think the current one was bad.

FOLDS / WRINKLES



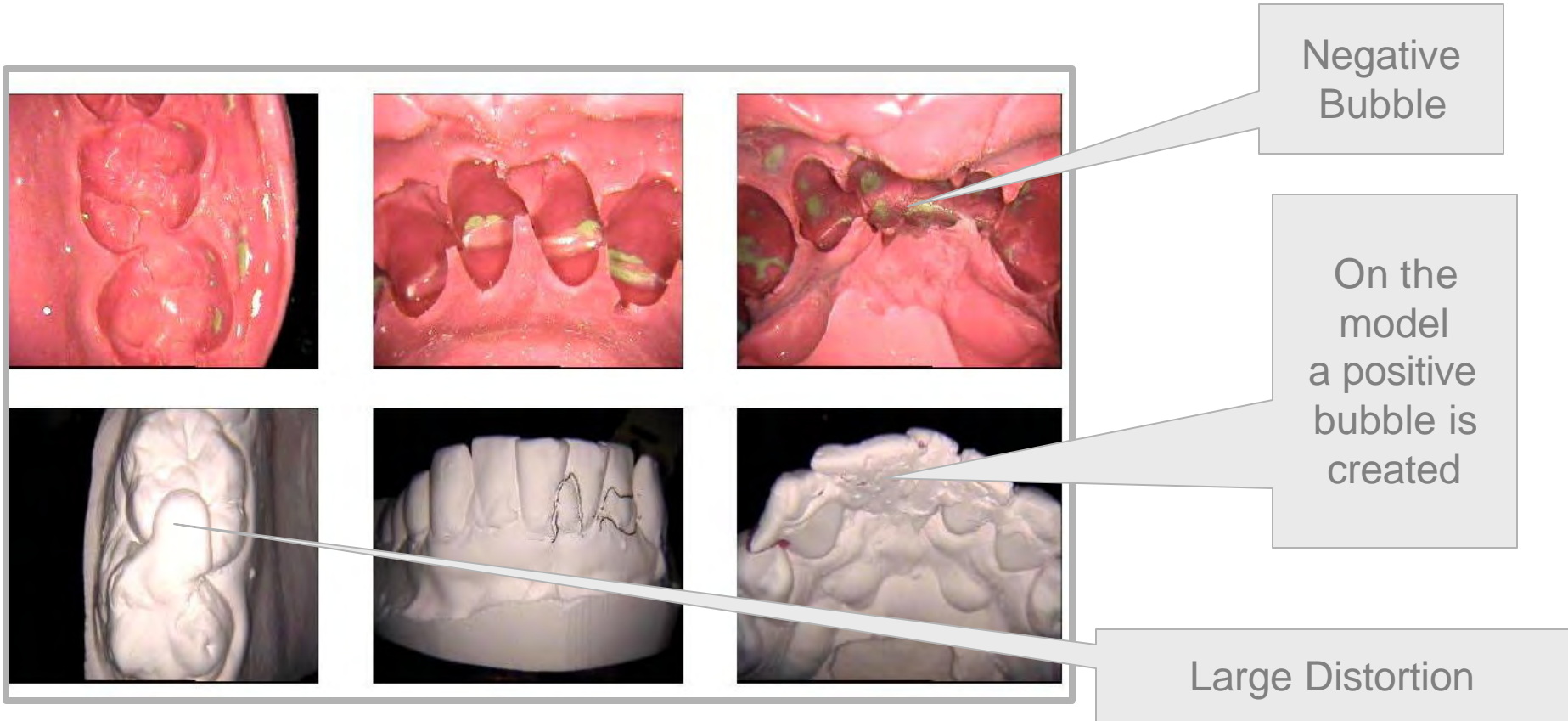
Relined:
you can see
two parts
of the
material
(one on top
of the other)



A step is
created in
the model
(articulated
models
will rock)

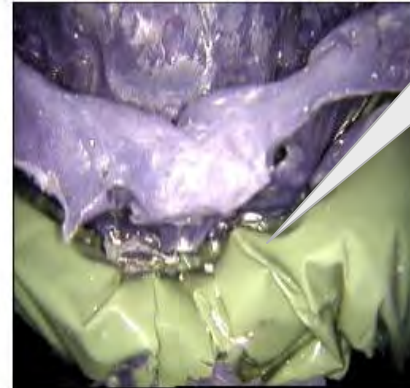
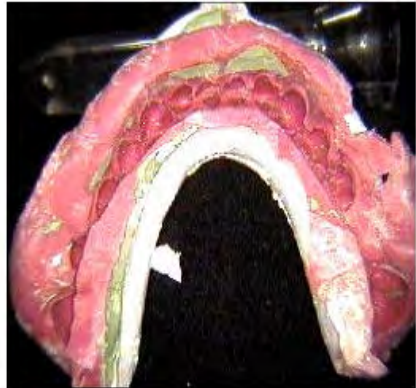
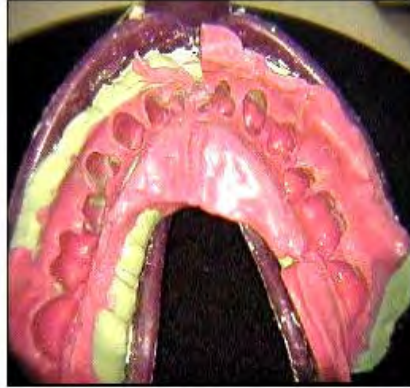
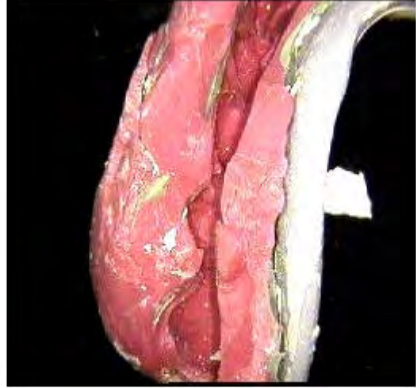
- Caused by relining the impression.
- Avoid this problem by not relining impressions, just take a new one if you think the current one was bad.

FOLDS / WRINKLES



- Caused by seating the impression too fast or moving the impression while it is setting.
- Avoid this problem by seating the impression slowly and keeping the tray still while setting

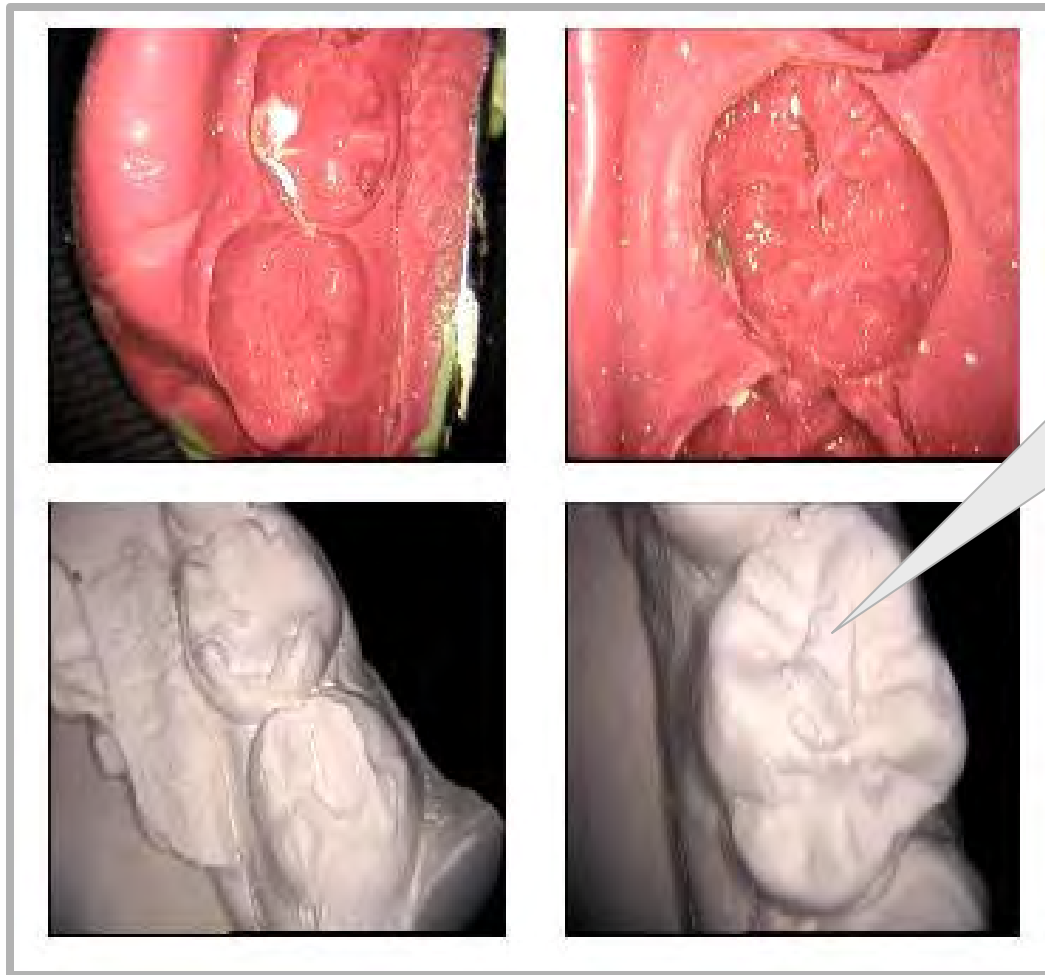
IMPRESSION MATERIAL PULLED AWAY



Separation
from
materials
and
trays

- Caused by using incompatible materials or customized acrylic trays without adhesive.
- Avoid this problem by using normal trays and normal PVS material and/or adhesive.

BUBBLES / VOIDS



It is important to have the normal and exact anatomy of the teeth in order to have precise fit of the Aligner and tooth movement

- Caused by removing impression too early.
- Avoid this problem by allowing the impression time to fully set before removal.

BUBBLES/ VOIDS

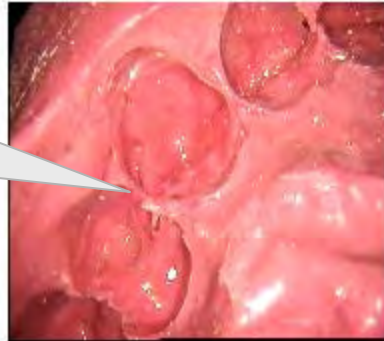


Tooth
anatomy is
elongated

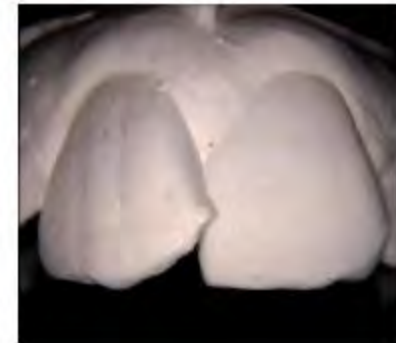
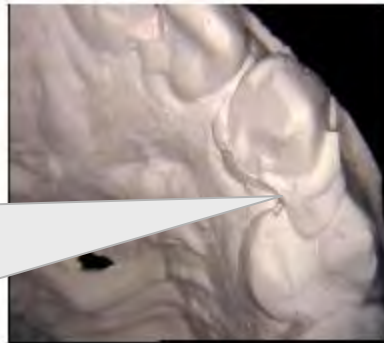
- Caused by removing impression too early.
- Avoid this problem by allowing the impression time to fully set before removal.

UNCLEAR SURFACES

The normal anatomy of the tooth is distorted

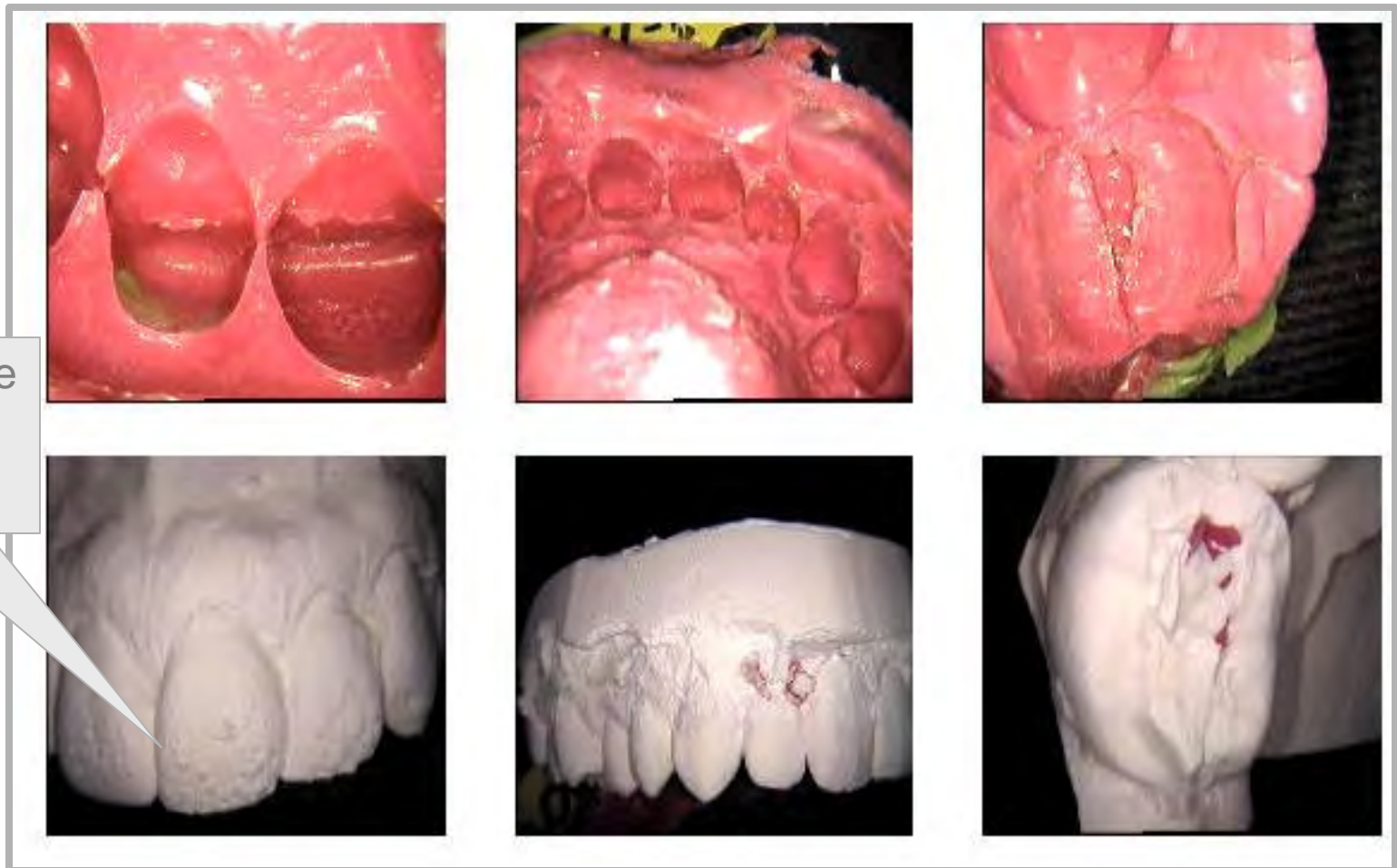


This inaccurate marginal ridges will create problems for Aligner fit



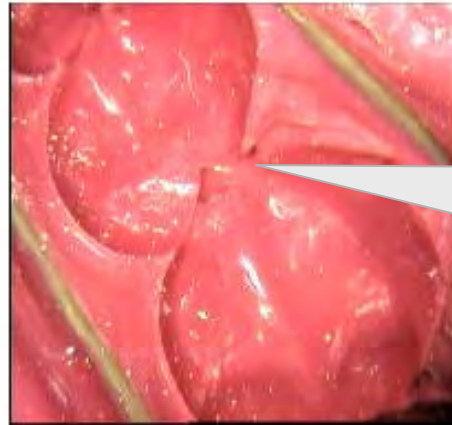
- Caused by removing impression too early.
- Avoid this problem by allowing the impression time to fully set before removal.

UNCLEAR SURFACES



- Caused by removing impression too early.
- Avoid this problem by allowing the impression time to fully set before removal.

UNCLEAR SURFACES



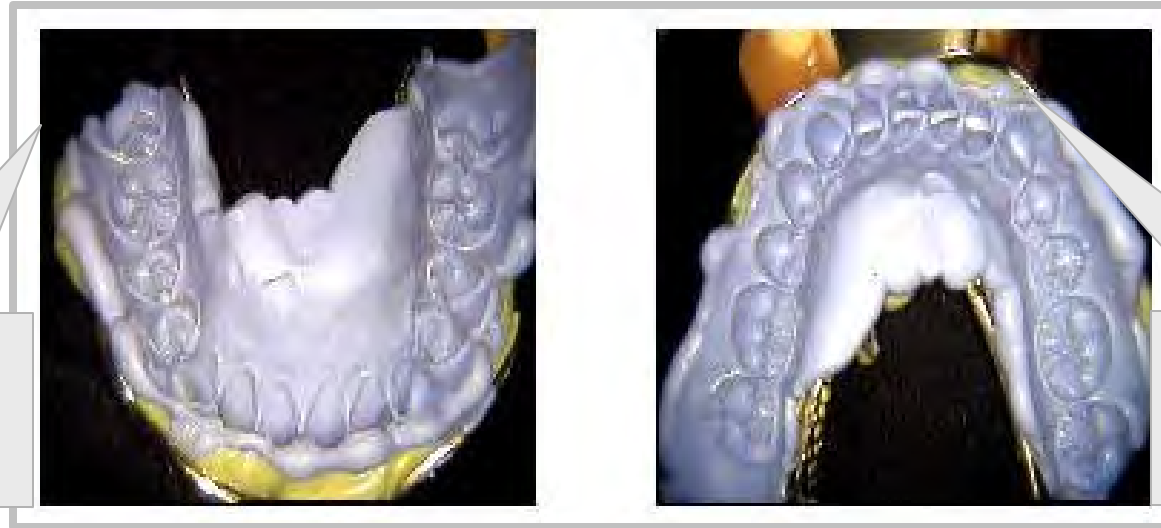
Precision of the tooth anatomy is the key for good aligner fit and movement



The Aligner will not fit properly in this area

- Caused by moving the impression while setting.
- Avoid this problem by keeping the tray still and stable during setting.

IMPRESSION OUTSIDE CONFINES OF TRAY

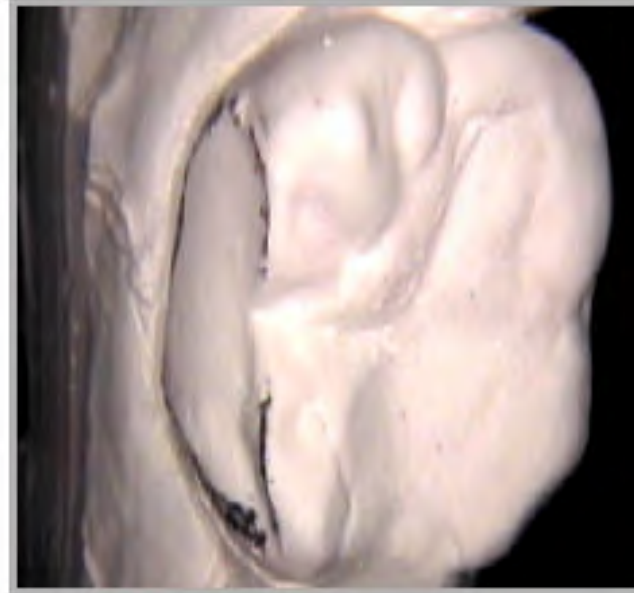
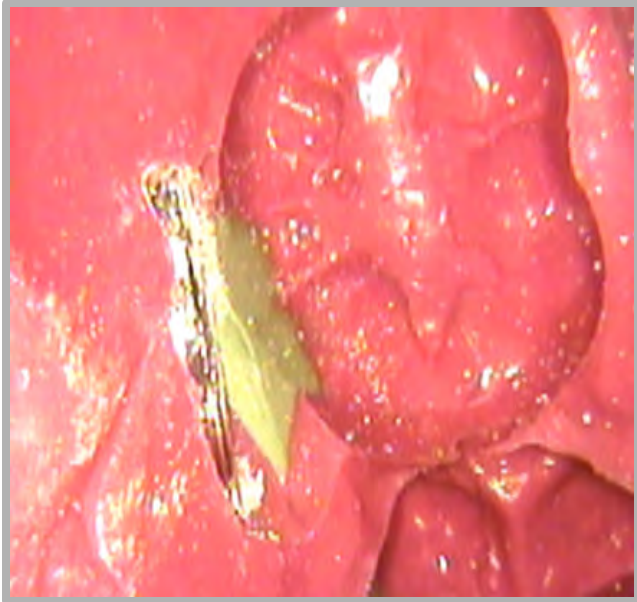


Tooth not captured in the impression

Tooth not captured in the impression

- Avoid this problem by selecting the correct size tray right size tray
- Complete seating of impression will allow capture of entire tooth anatomy.

PUSH - THROUGH



- Caused by pushing down too hard on impression during a 2-Step Impression Technique.
- Avoid this problem by gently seating impression and/or by using 1-Step Impression Technique.

Please send your 'Tips and Techniques' -ideas and suggestions-

Email: tipsandtechniques@aligntech.com

Subject: Impression Tips

Attn: David A. Chenin, DDS

Thank you!

The Invisalign logo is displayed in a bold, blue, sans-serif font. The word "invisalign" is written in lowercase letters, with a registered trademark symbol (®) to the upper right of the final "n". A thin vertical line is positioned to the right of the registered trademark symbol.