

Mistake : Distorted Impression

A. Distorted Impression may cause *Short Margin & Porcelain Chip*

1) **Use proper Impression Tray:**

Wider Tray, Rigid Tray, Dammed Tray

2) **Apply Adhesive properly**

3) **2 step impression technique may cause the problem due to improper chemical bonding**

4) **Avoid using Utility Wax** because it may cause **separation** between Impression Tray & Impression Material

5) **Avoid using putty** when you have issues

Mistake : Not Enough Impression Material

B. Use enough impression material to have a **solid & steady impression**

1. If the impression is **not solid**, when lab pours out the model, the stone, when drying, will stretch out the impression. This is a natural process with stone, which is why all impression we receive **MUST** be solid and steady.

==> Use enough impression material to have a solid impression

2. Use **Dammed (Side Wall) Tray** for a better result



Mistake : Moving Impression Coping

C. Retake an impression

if Impression Coping or Impression is moving

Mistake : Moving Impression Coping

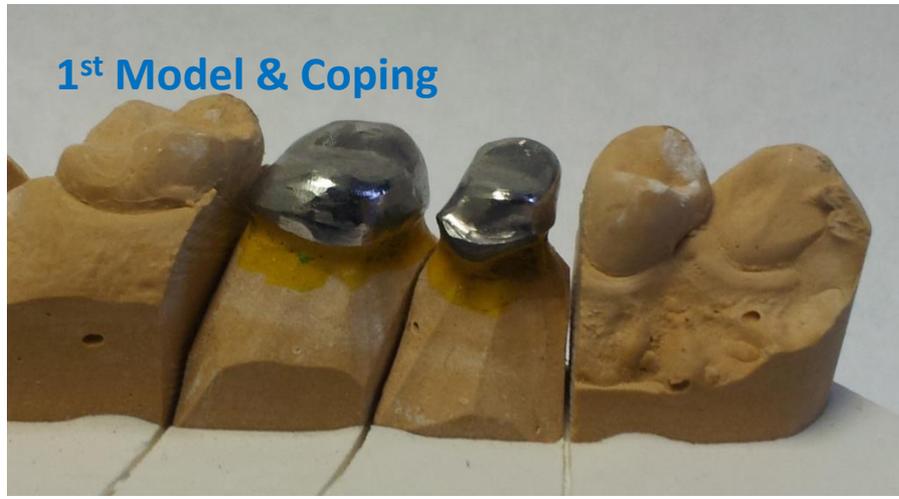
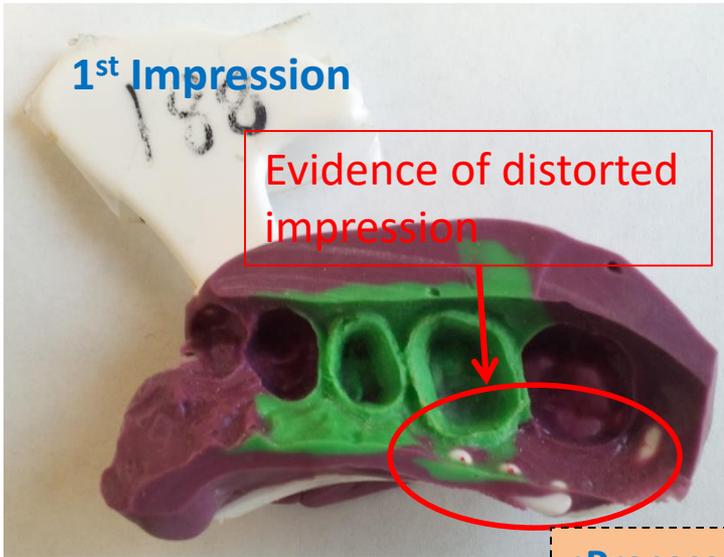
C. Retake an impression

- Locator Abutment is moving
- Impression material is moving & separated

Issue?



Distorted Impression → Short Margin & Porcelain Chip



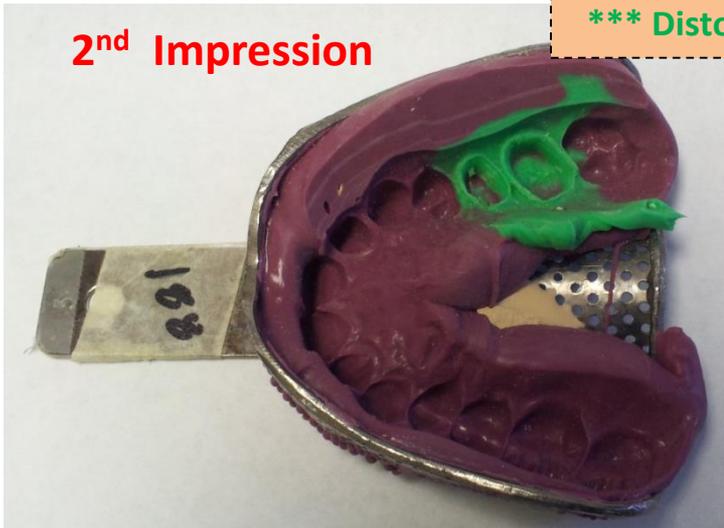
• Same doctor
• Same patient
• Same teeth #



• Process: Made 1st Model & 1st Coping with 1st Impression → 1st Coping perfectly fit on the 1st Model → Made 2nd Model with 2nd Impression → 1st Coping did NOT fit on the 2nd Model (Short Margin)

• Conclusion: 1st Impression ≠ 2nd Impression because 1st Impression was distorted due to narrow impression tray

*** Distorted impression can cause Short Margin & Porcelain Chip ***



Distorted Impression - Solution

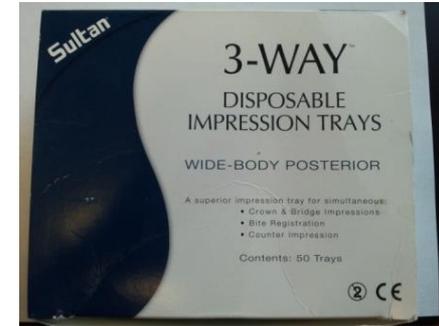
(A) Why impression is distorted (one example)?

• If there is anything showing on the impression other than the patient's actual anatomy, (the impression tray showing through the impression) it can cause a distortion:

- When patient bites down, the impression tray can flare outward.
- Once the impression is taken out, the tray will return back to its original position (SPRINGBACK)

• Solution (one example):

- Use Sultan 3-Way Disposable Impression Trays – wide body



(B) Better Impression Tray (However, more expensive) :

• It is better to use metal/plastic Partial Quadrant tray than Triple tray

(C) The impression itself needs to be steady and solid.

• If the impression is not solid, when lab pours out the model, the stone, when drying, will stretch out the impression. This is a natural process with stone, which is why all impression we receive MUST be solid and steady.

(D) Impression Material

- Use heavy body & light body separately
- Do not use putty! Putty will ALWAYS carry a distortion

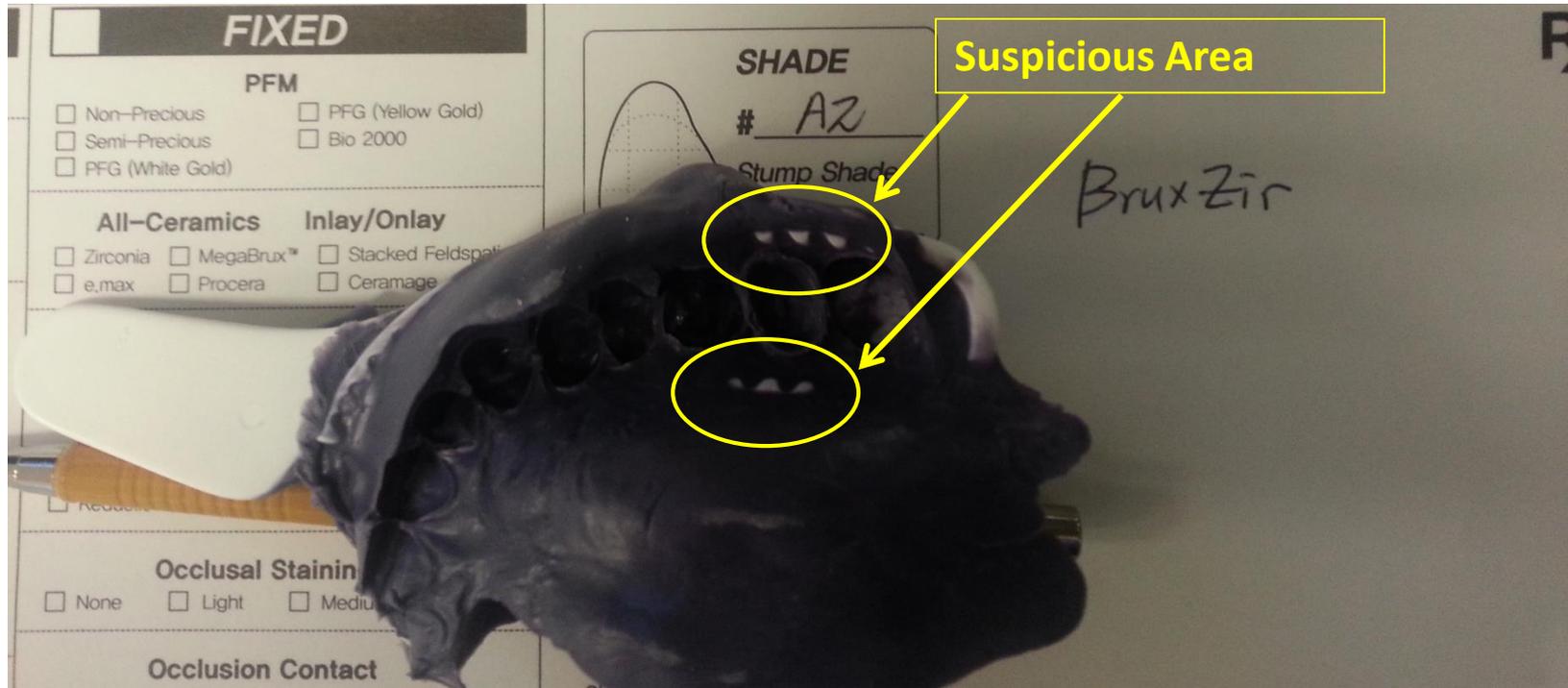
(E) Adhesive

- Apply Adhesive fully inside AND outside of impression Tray
- If Adhesive is only applied on the inside of the tray, impression might NOT be secured and might separate from the tray
- ➔ Eventually, crowns will NOT fit

Impression is separated from the tray
➔ NOT secured



Distorted Impression : Example (1)



Dr. Jason Kim,

Your prep is really good. Therefore, we will finish the case per your prep.

However, there is still a potential issue that it might not fit due to the distortion of impression.

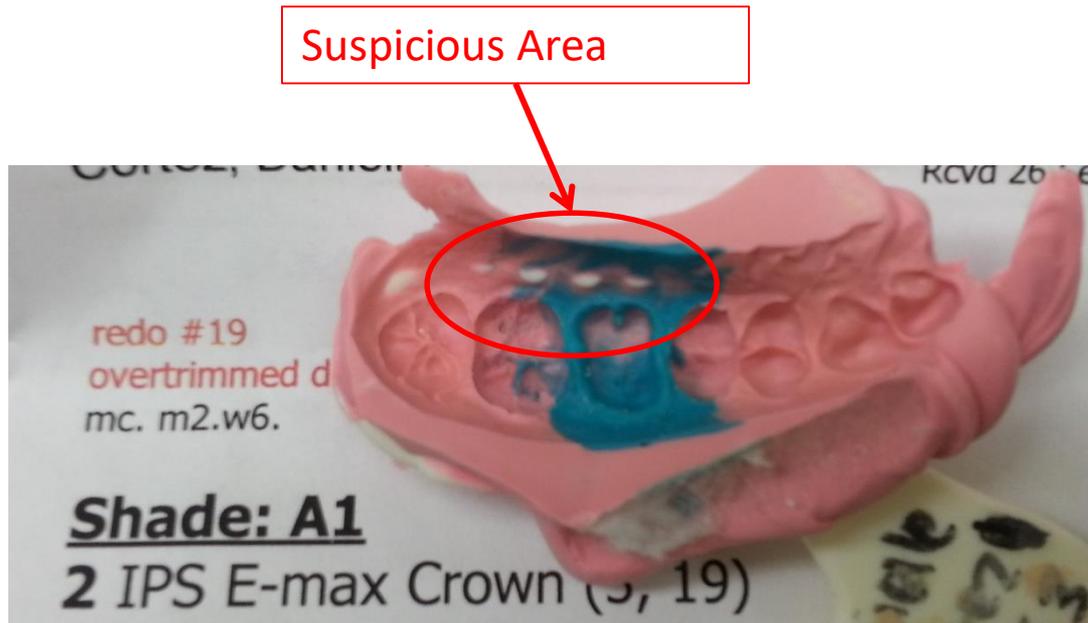
Then, please use **metal/plastic partial tray**.

- I think you have material issue (Impression Tray), not prep issue:

We have had the same issue with many other doctors.

Recommendation: Once you experience redo with Triple Tray, please use **a metal/plastic partial tray to prevent from 2nd redo.** (I am attaching our manual to solve the issue → Please see the next 2 pages)

Distorted Impression : Example (2)



Dr. Smith,

Your prep is really good. Therefore, we will finish the case per your prep.

However, there is still a potential issue that it might not fit again due to the distortion of impression. Then, please use metal/plastic partial tray.

- I think you have material issue (Impression Tray), not prep issue:

We have had the same issue with many other doctors.

Recommendation: Once you experience redo with Triple Tray, please use a metal/plastic partial tray to prevent from 2nd redo. (I am attaching our manual to solve the issue → Please see the next 2 pages)

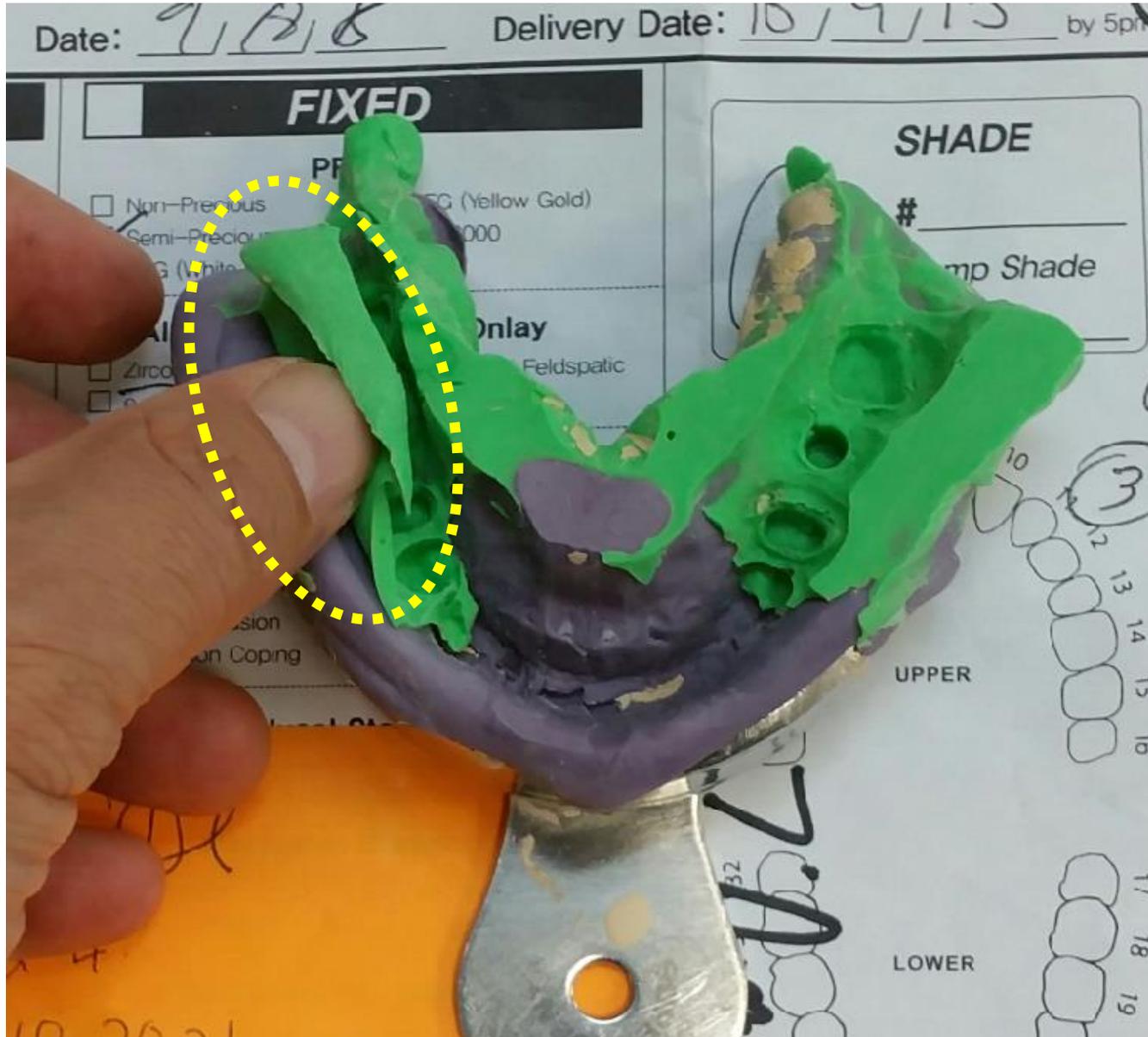
Distorted Impression : Example (3)

Distortion due to this:



If crown does not seat,
please read the attached manual & take a new impression
with a Partial/Quadrant impression tray.

Separated Impression -1



Separated Impression -2



↑
Impression Tray & Impression
↑
are totally separated.

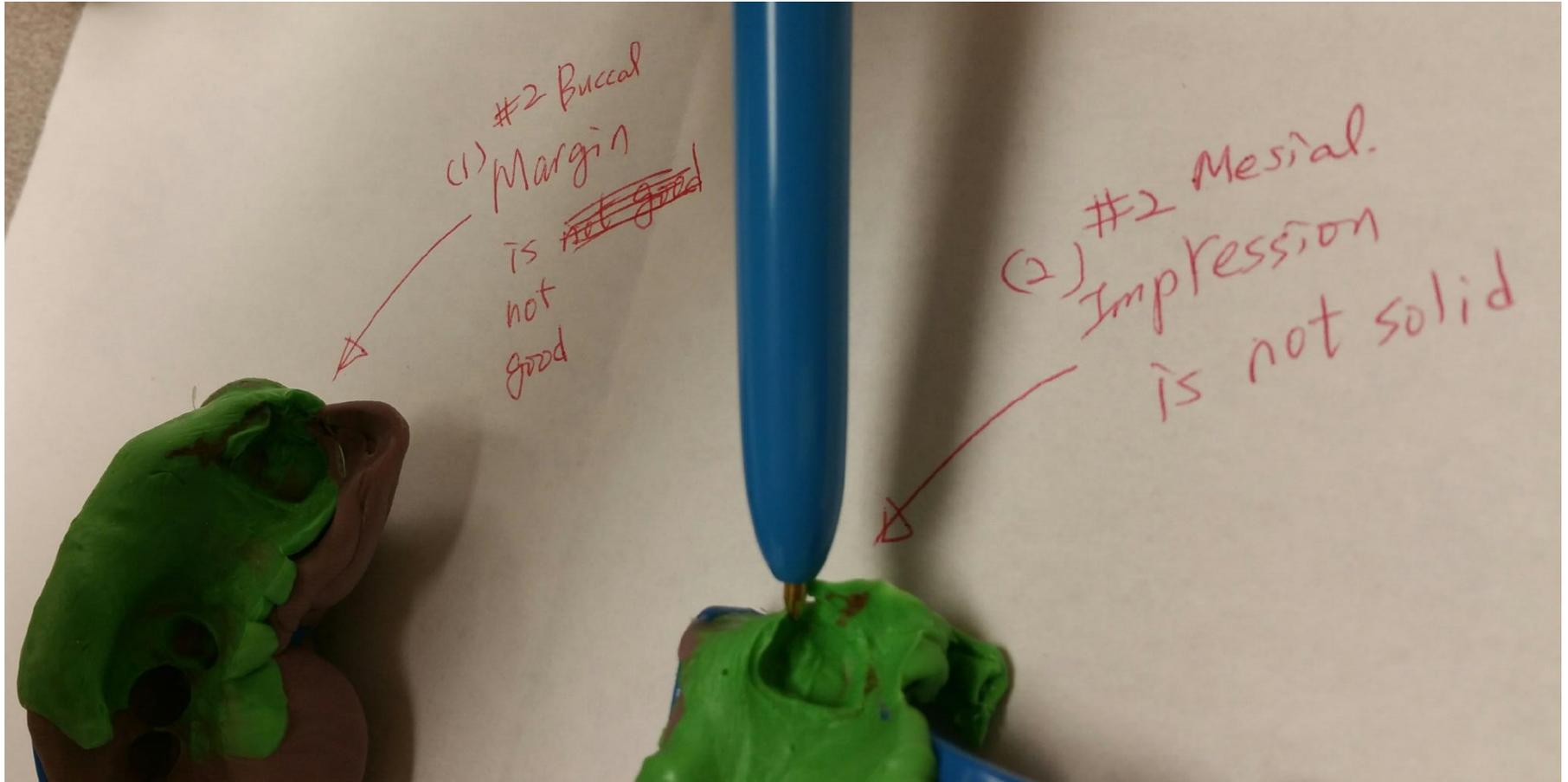
- ① Use Partial Tray w/ slot
- ② use enough Material (Impression) to grasp edge of Tray

Same Case... But 3 Different Impressions



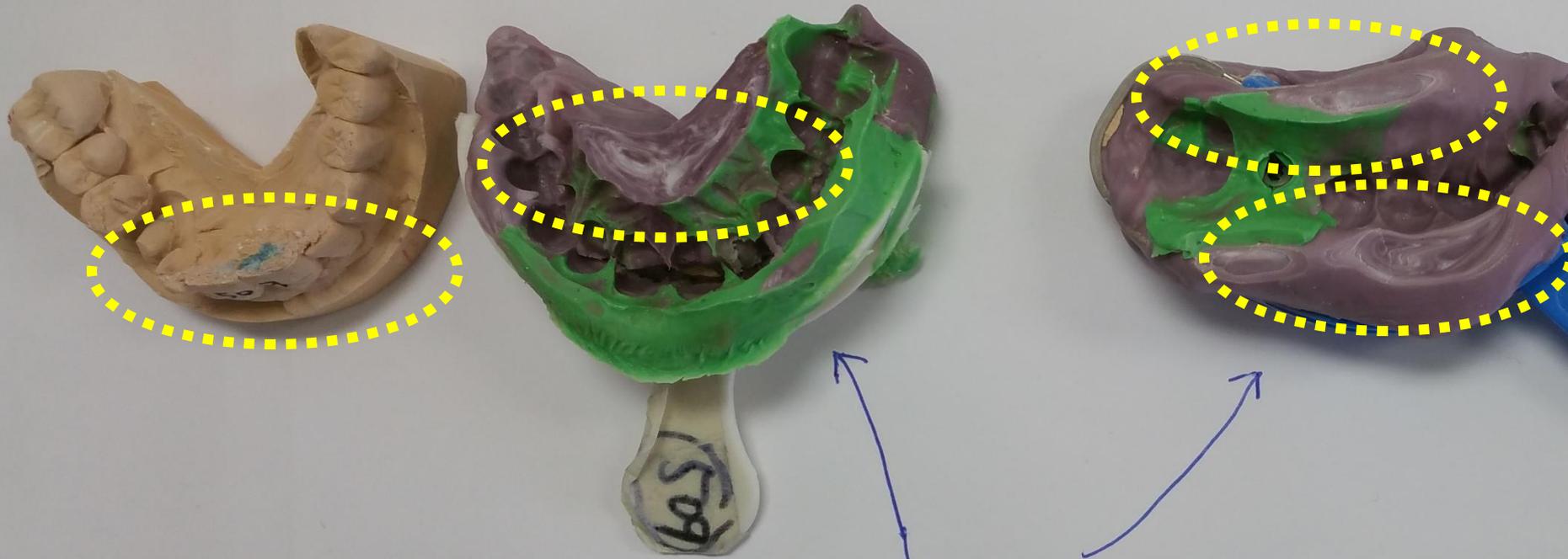
- Same Case ... But 3 different impressions

Not Stable/Solid Impression



- 1st impression... On #2 Buccal, margin is not good
- 2nd impression..On #2 Mesial, impression is not solid

Setting Time / Not Mixed Properly



① Impression Material Issue?
→ Need to change?

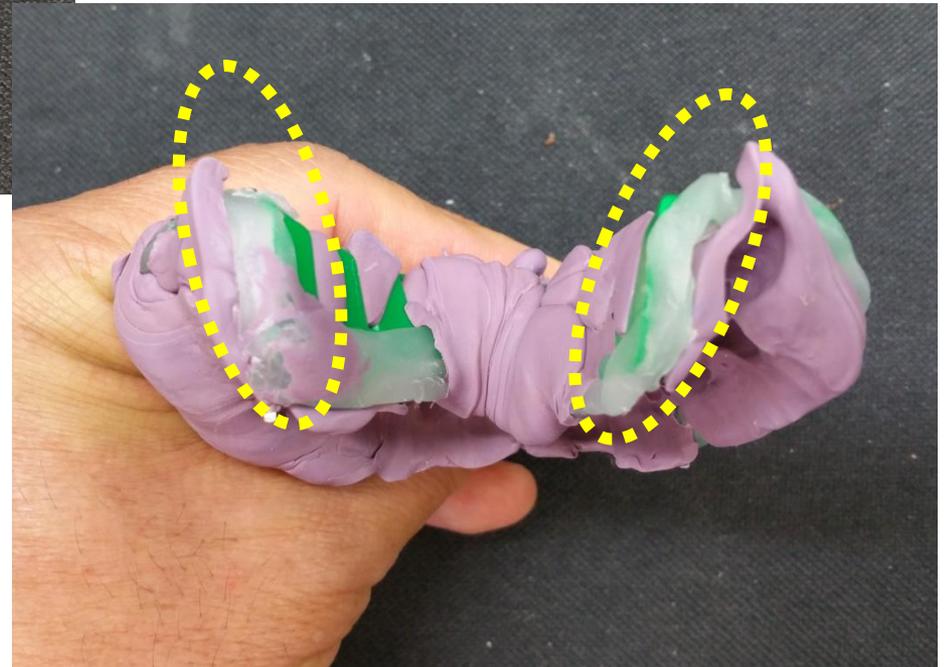
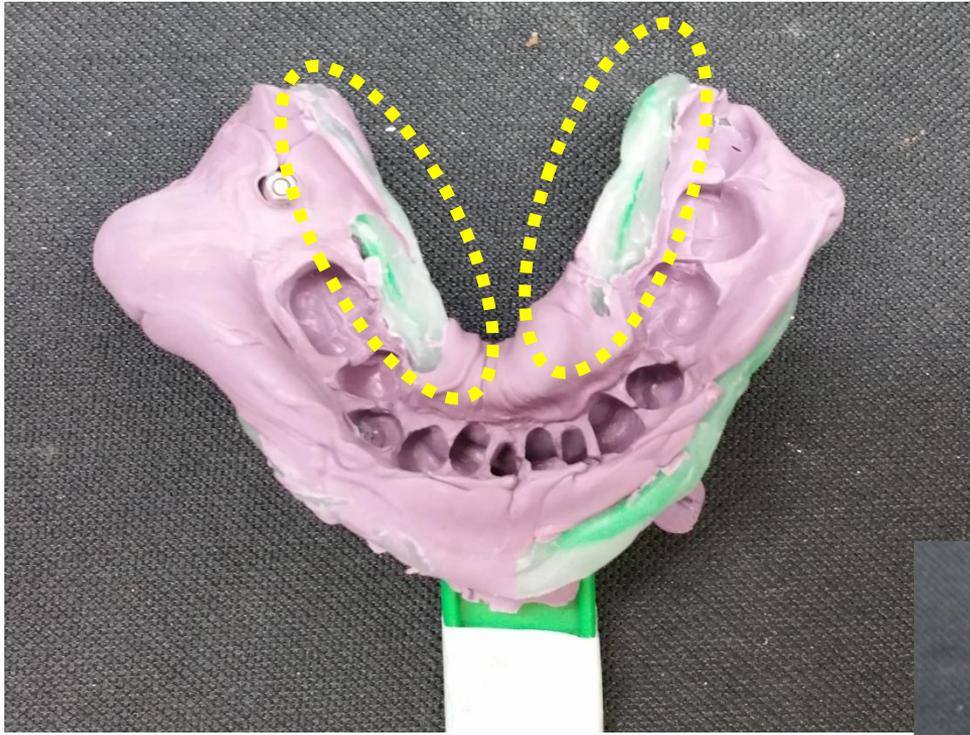
② Setting Time Issue?
→ Tube Type vs. Hand Type.

③ Putty

not mixed

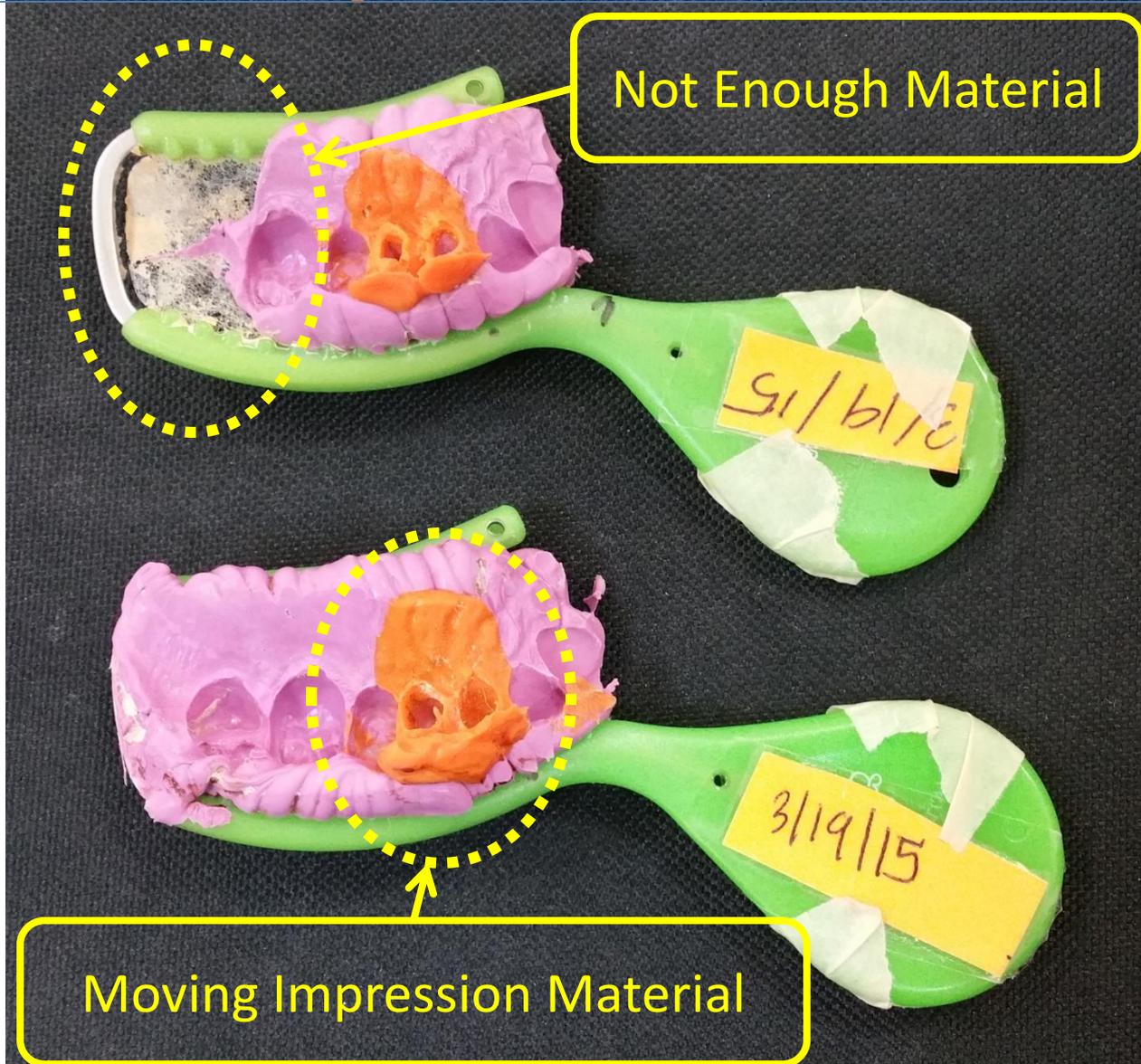
a. chemical Bonding Issue

Utility Wax may cause the separation of impression

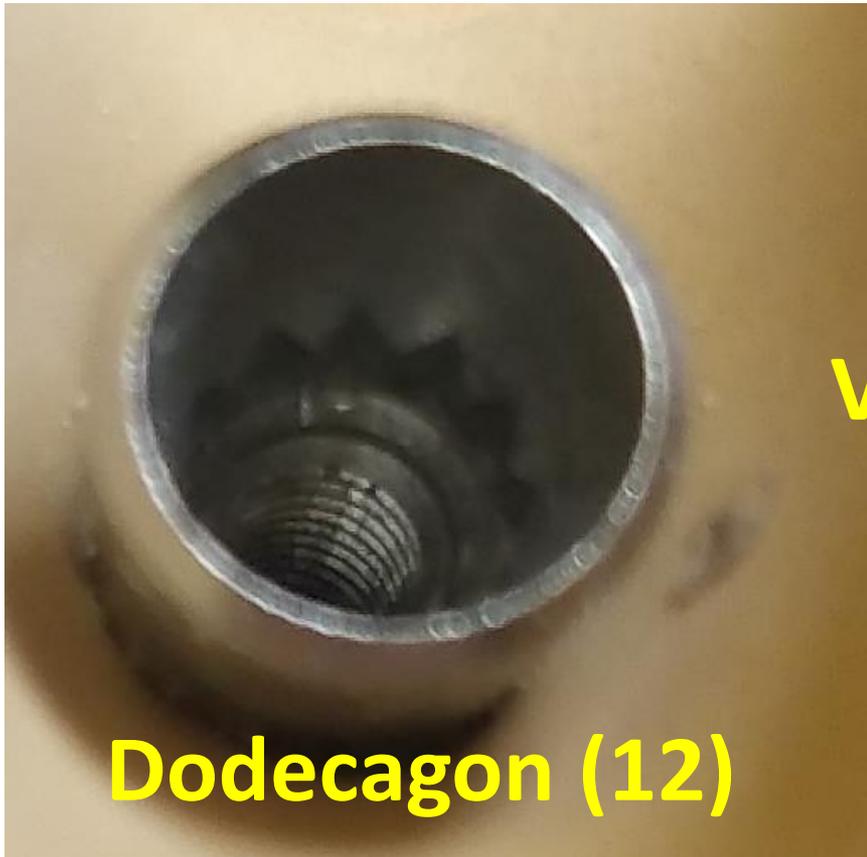


Not Enough/Moving Material

→ Distorted Impression



Rotated Abutment Due to Wrong Analog



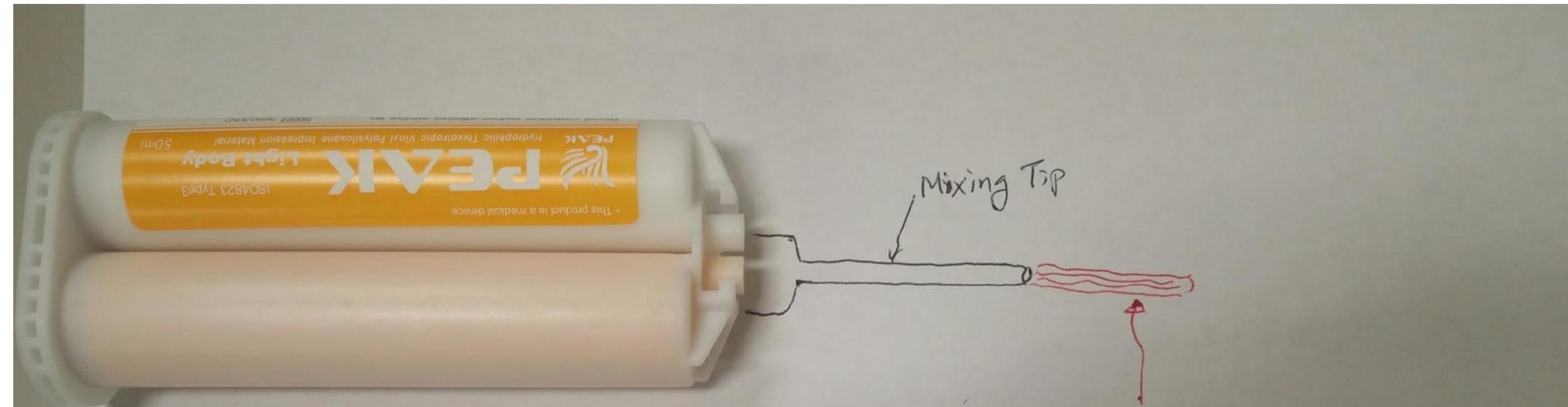
Dodecagon (12)

VS.



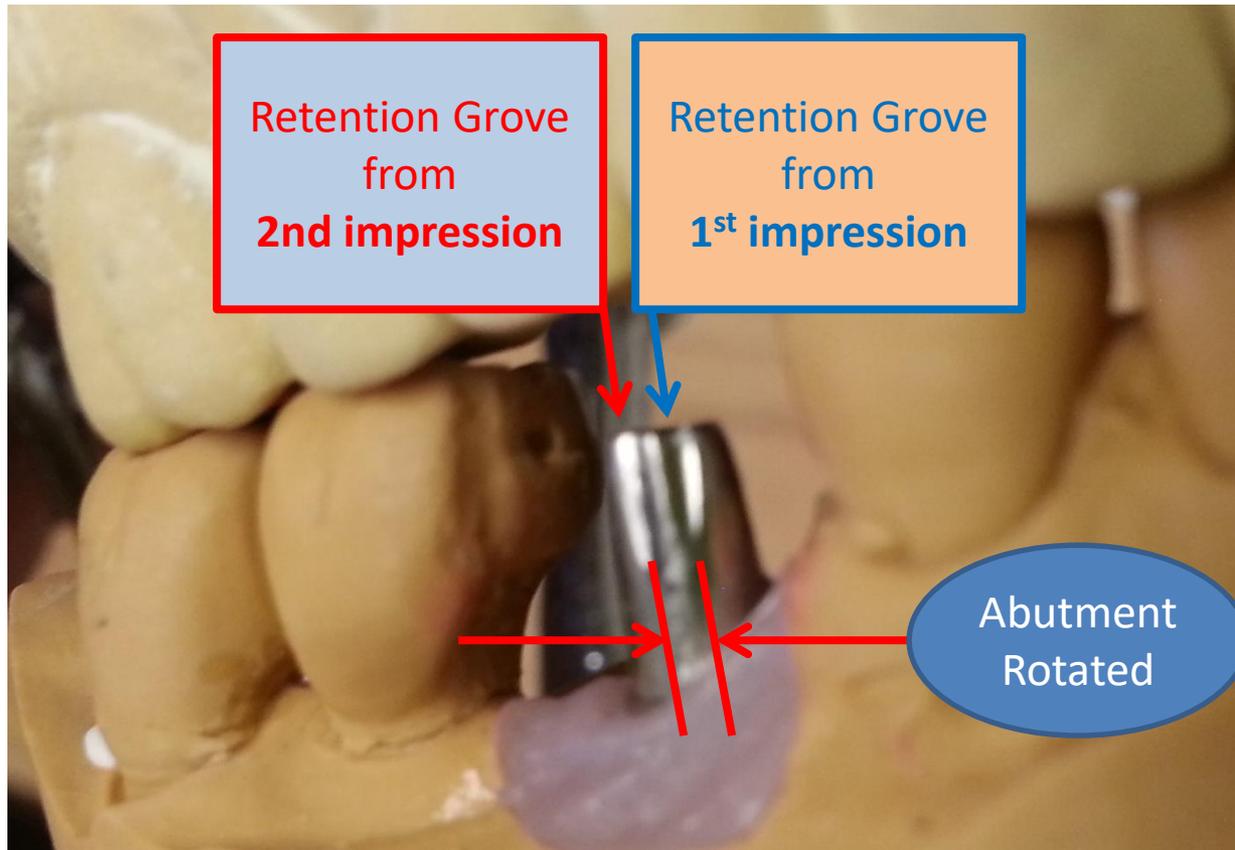
Hexagon (6)

When opening a new cartridge → Squeeze out before using



- When opening a new cartridge, please squeeze out some of the impression before actually injecting into the tray/patient
- Impression material near the opening is not mixing properly sometimes. And it will have a weak chemical bonding and may potentially cause impression issues

Rotated Abutment Due to Wrong Impression



- We always make Retention Groove in the center on the buccal side of the abutment to prevent from rotation.
- During remake we found the abutment was slightly rotated (positions of Retention Grooves are not the same). There is a possibility for the 1st impression and the 2nd impression to be slightly different.
- Unfortunately, we could not complete the analysis of root causes of remake because we had no 1st impression. → ***When we have a Remake case, please send the old impression, the old model and old crown/denture back to us for the analysis of root causes to improve the quality.***

Rotated Crown Due to Wrong Impression



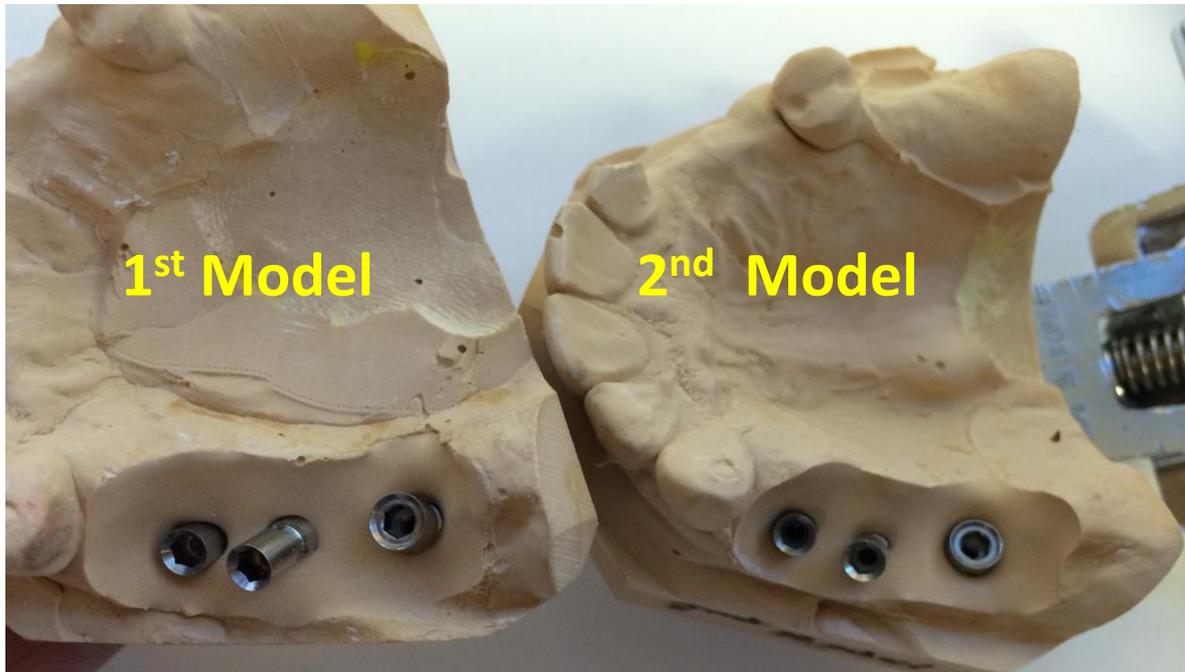
Different Impressions : 1st vs. 2nd



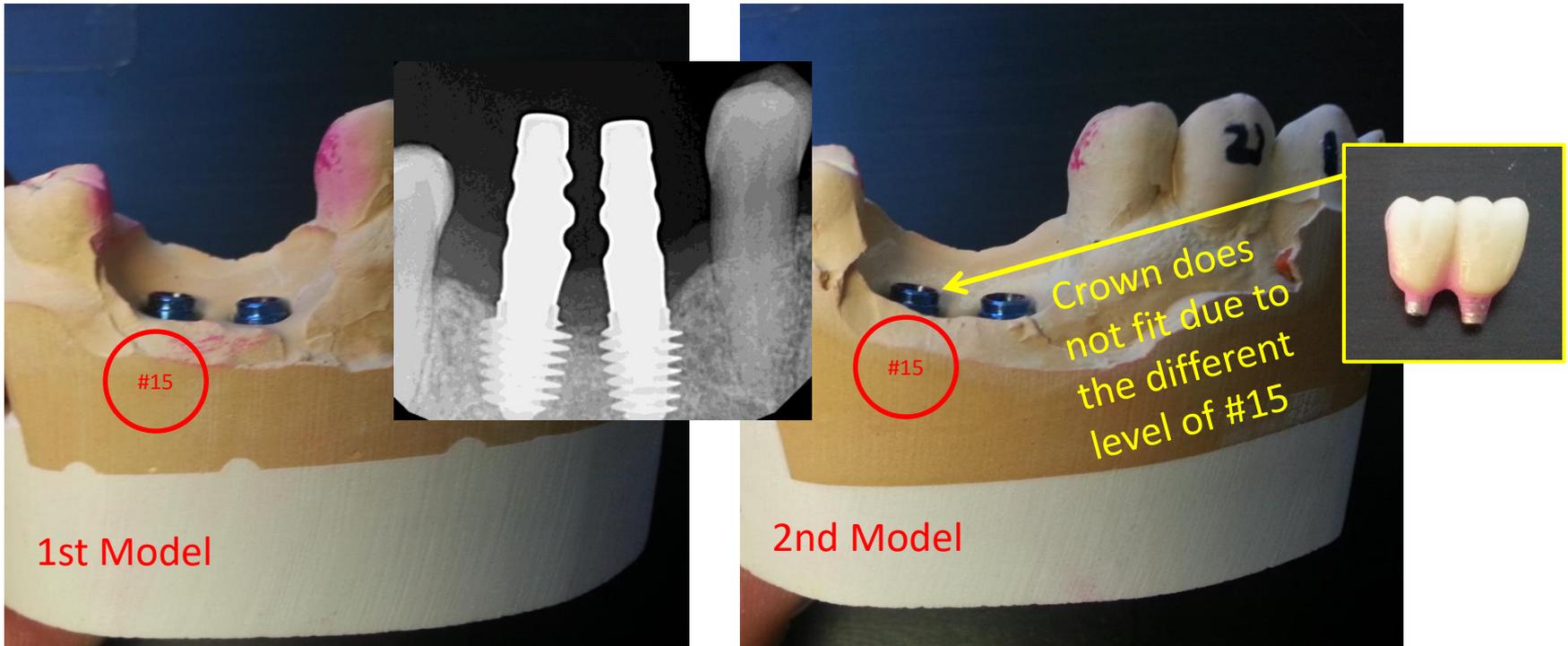
- 1st Model and 2nd Model are not the same for some reason

- We are afraid it might not fit again if we finish as is.

- Therefore, we would like to make Jig for a new impression. Furthermore, Mr. Chung (Master Tech) would like to be there to support you when patient is coming



Different Impressions: 1st vs. 2nd & Moving Impression Coping



Issue: (1) Impressions are not the same (1st vs. 2nd),

(2) Impression Coping on #15 is moving in the 2nd impression.

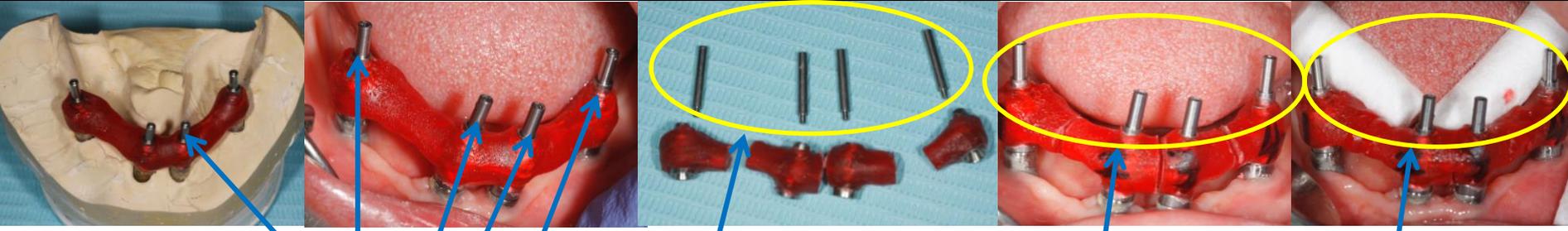
1. We have made 2nd model with the new impression and found out that the level of #15 in the 2nd model is higher than the one in the 1st model. Therefore, old crown fit to the 1st model and does not fit to the 2nd model.
2. We have analyzed doctor's X-ray. It seems that 2nd model is correct. However, we would like to do Metal Try-in, just in case, because Impression Coping on #15 is moving.

Our plan: **Lab** cut splinted crown, customize to fit to the 2nd model, and do Duralay.

Doctor takes X-ray with Durayed Metal. If it fit, send the Metal to the lab. If it does not fit, section Metal, lute with Duralay (Pattern Resin, Acrylic Resin), and send it to the Lab

Impression was taken **WITHOUT** Screw-In

Normal Procedure: When lab sends Verification Jig, lab fixes it with screws to model. Then, doctors unscrew it, then put it into pt mouth, then screw in again to make impression copings be fully seated, then take x-ray. If it does not fit, remove jig and section it. Then, put sectioned Jig into pt mouth, then screw in again to make impression copings be fully seated. Then take x-ray. If it fit, lute it and take impression



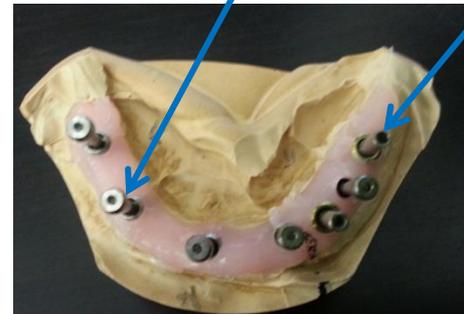
These are screws

Your Case :

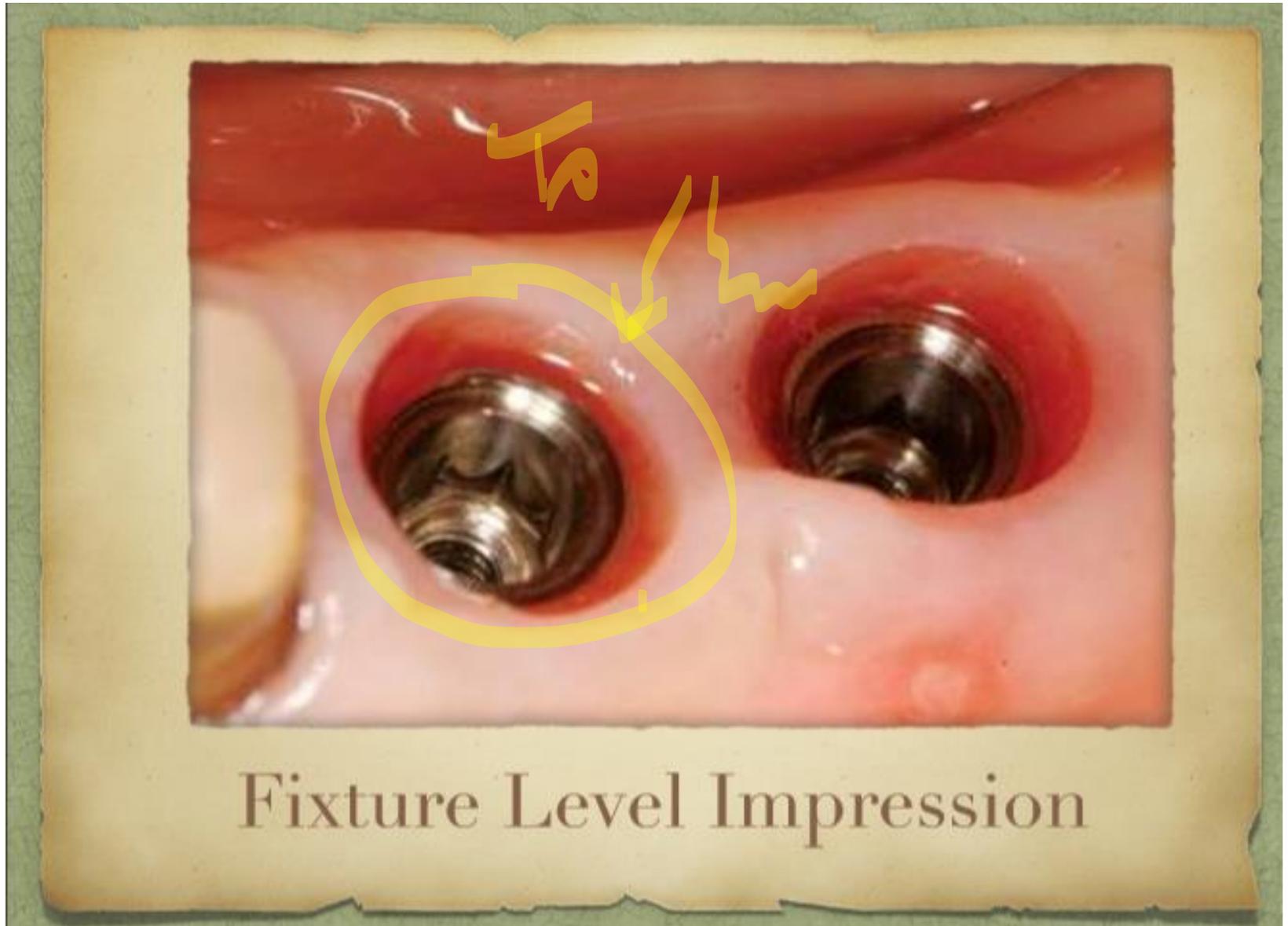
These are screws (7 ea)

7 screws are missing. Something was wrong between Lab and your office

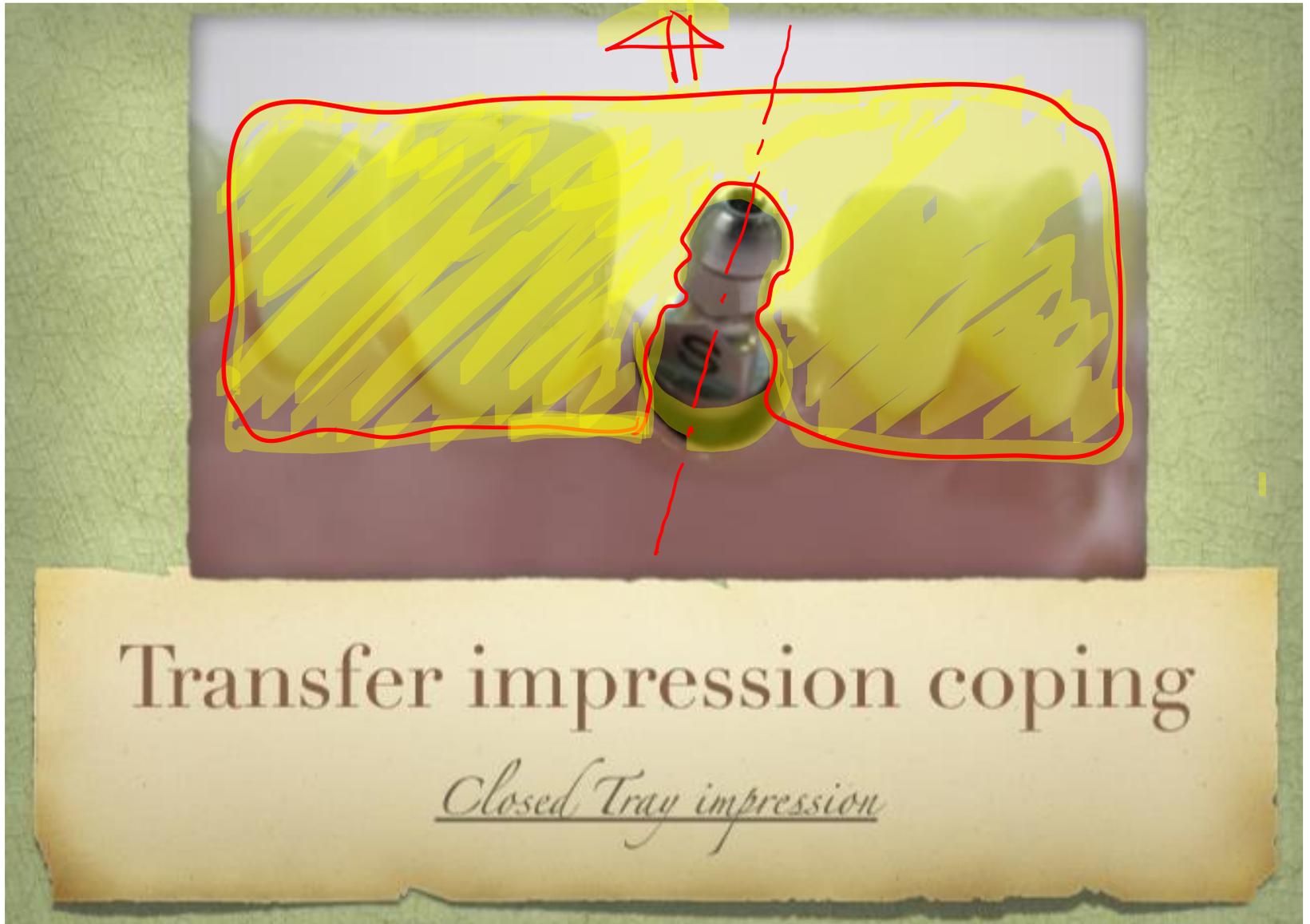
In the new impression, all holes of impression copings are clogged with impression material except one because Dr. could not use screws. Dr. might use different technique to make impression copings be fully seated without screws



Implant Level Impression



Transfer Impression Coping – Close Tray



Transfer Impression Coping – Close Tray



Transfer impression coping

Pick-up Impression Coping – Open Tray



Pick-up Impression Coping – Open Tray



Pick-up Impression coping

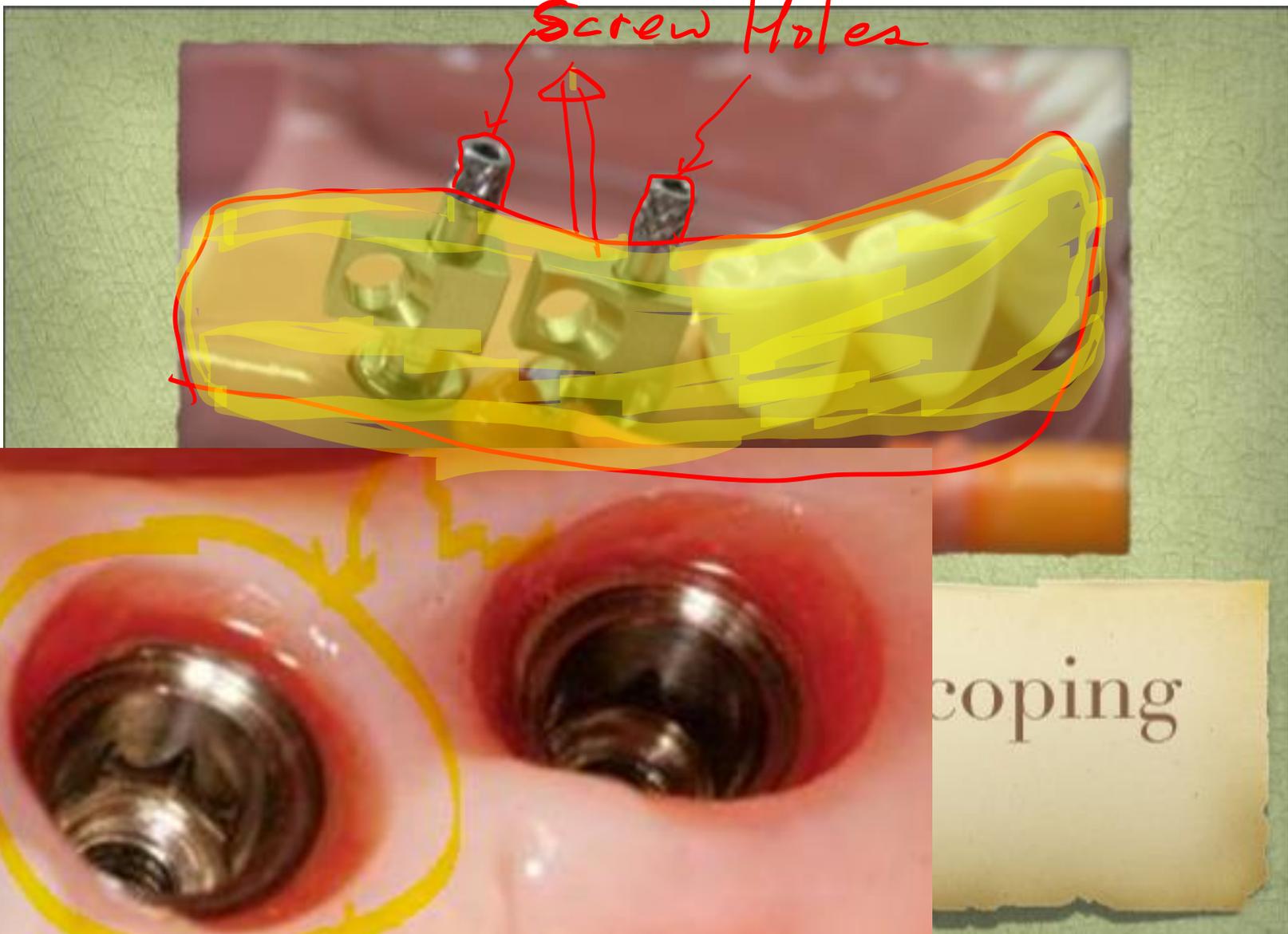
Pick-up Impression Coping – Advantages

- **More Accurate**
- **Less Distortion**
- **Ideal for Multiple Implants**
- **Ideal for Angled Implants**
- **MUST for Full Mouth**

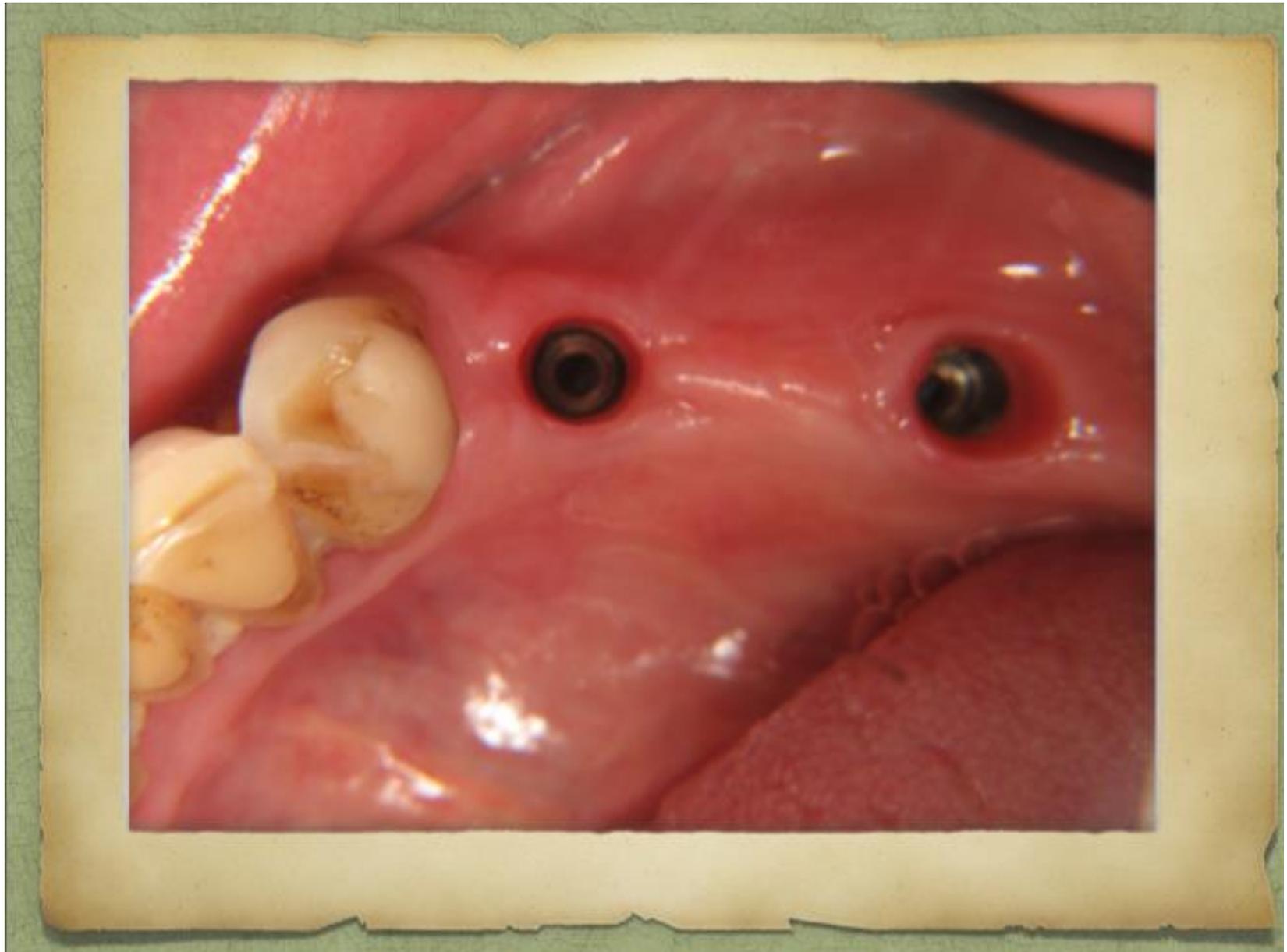
Transfer Impression Coping – Close Tray



Pick-up Impression Coping – Open Tray



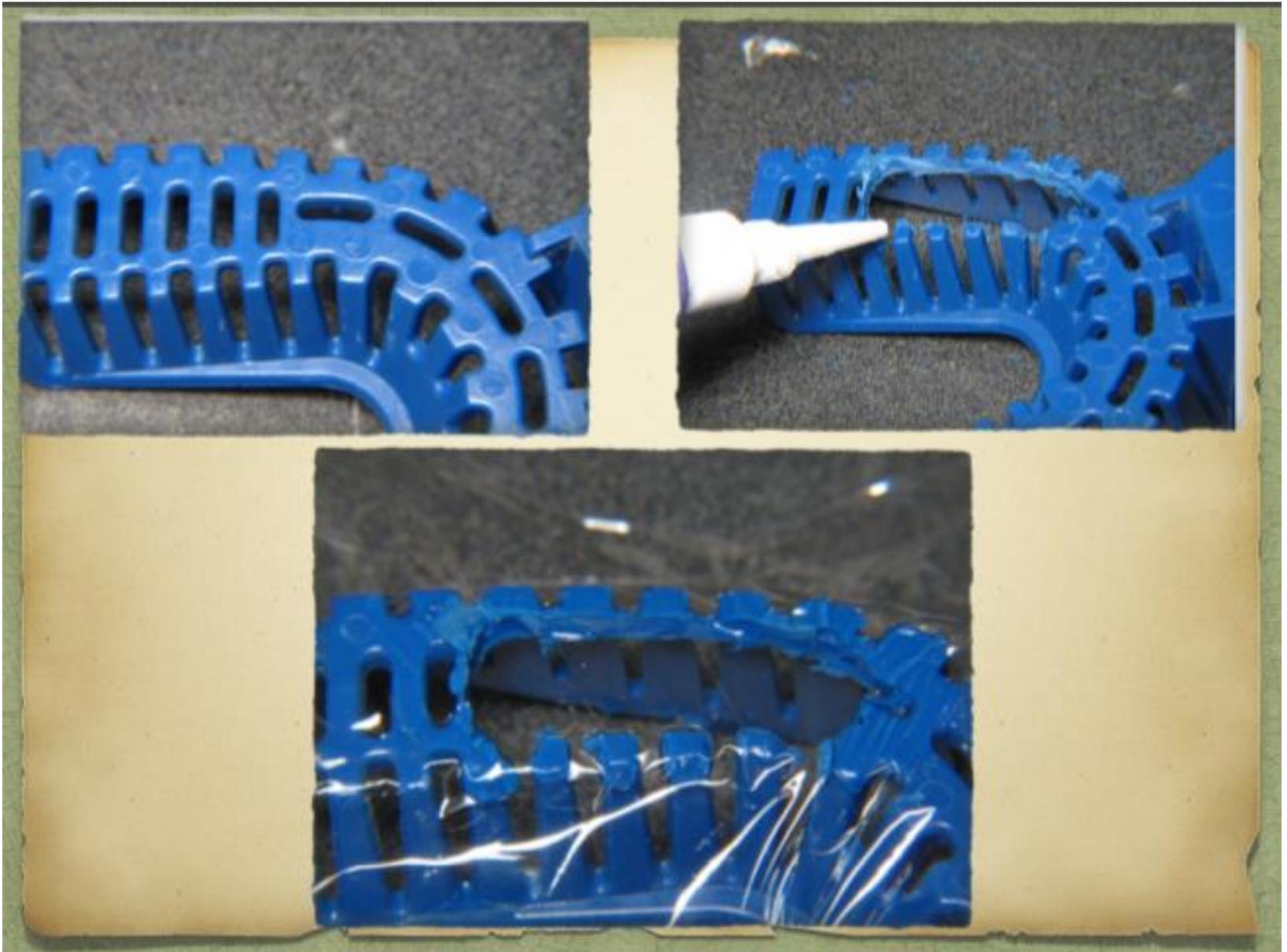
Pick-up Impression Coping – Open Tray



Pick-up Impression Coping – Open Tray



Pick-up Impression Coping – Open Tray



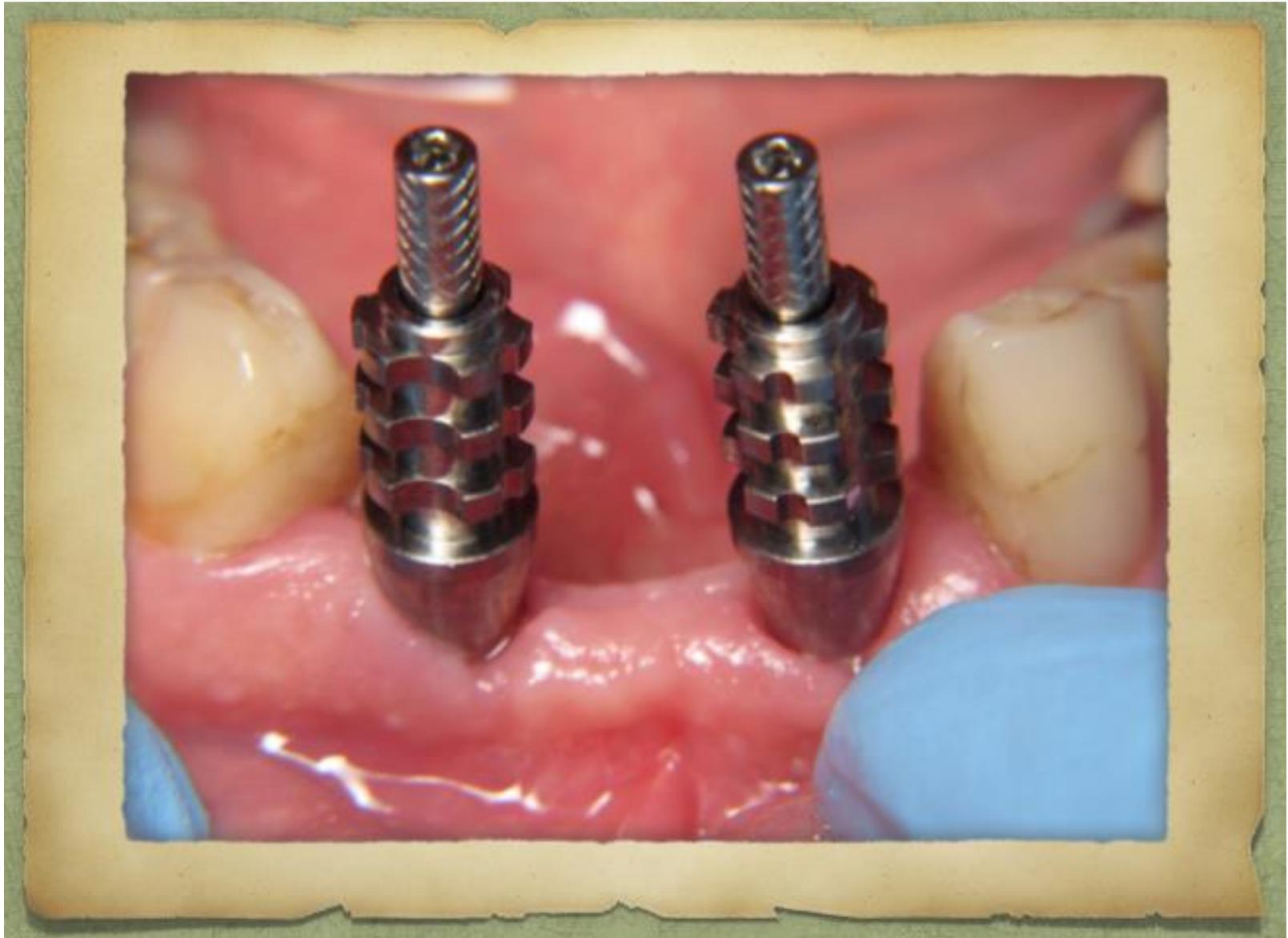
Pick-up Impression Coping – Open Tray



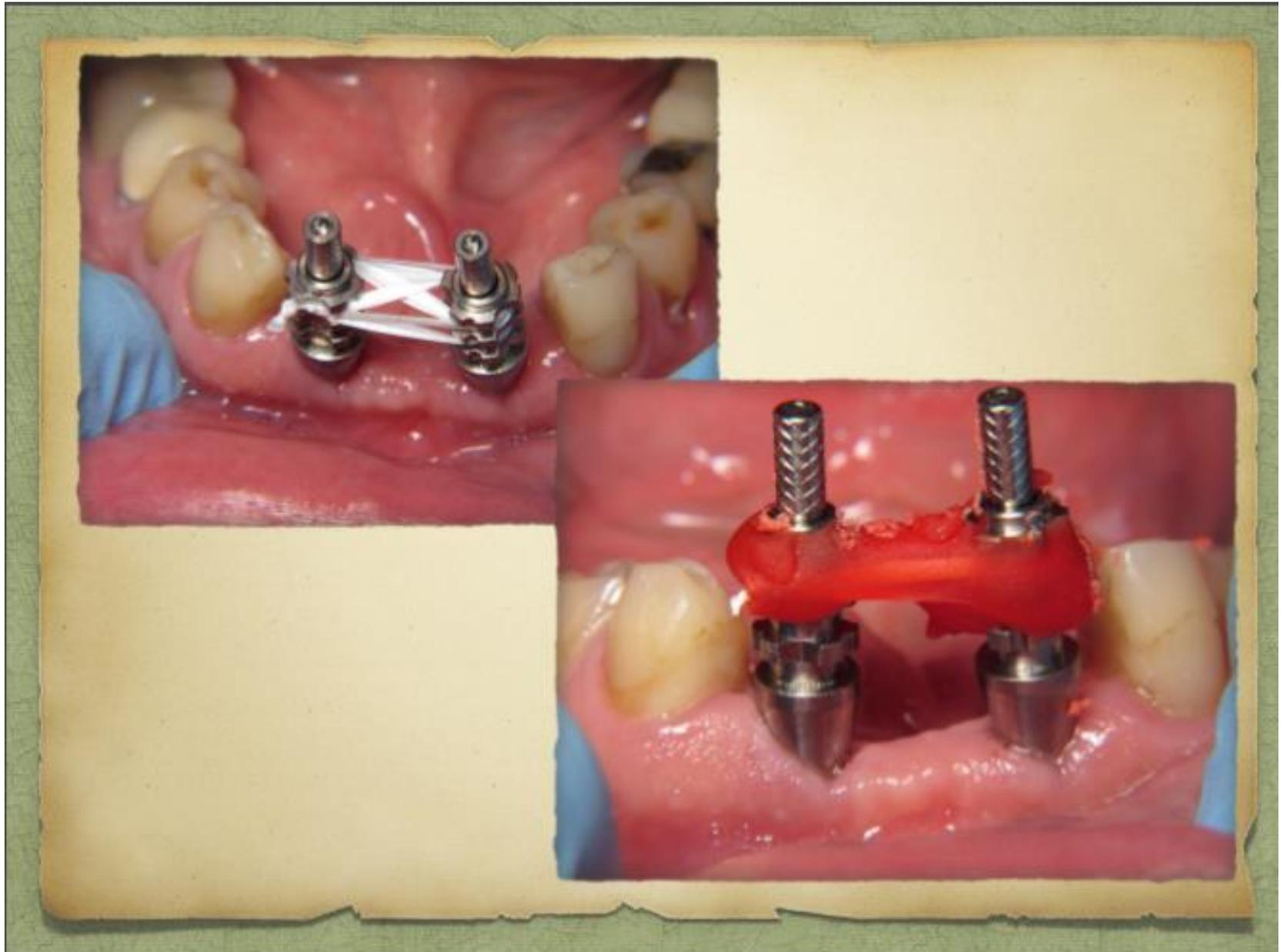
Pick-up Impression Coping – Open Tray



Pick-up Impression Coping – Open Tray



Pick-up Impression Coping – Open Tray



Pick-up Impression Coping – Open Tray

