

# 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

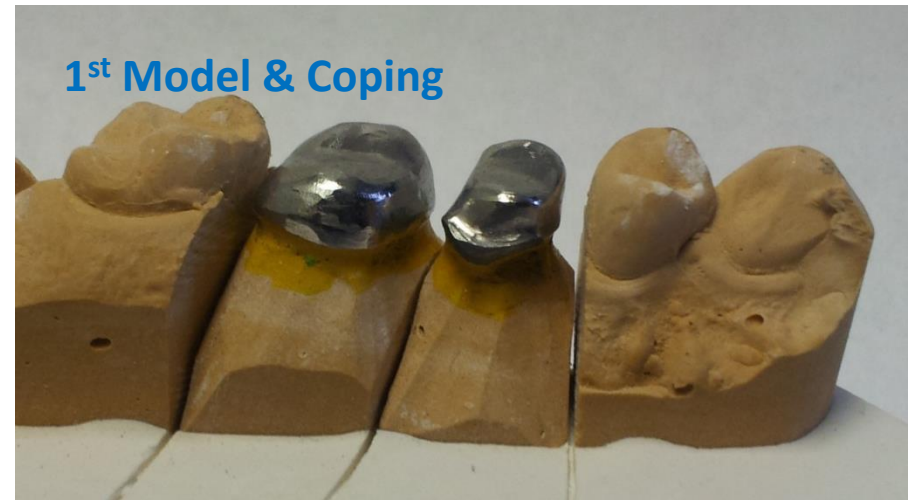
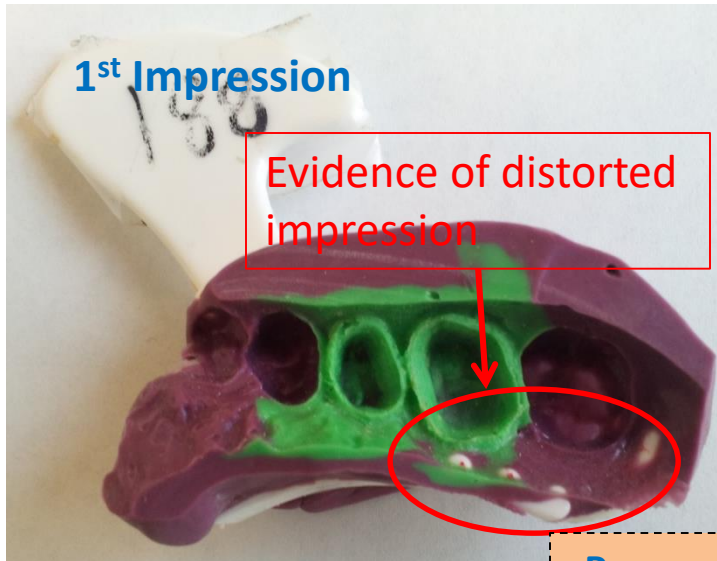
## C. Retake an impression

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

# Issue?



# Distorted Impression → Short Margin & Porcelain Chip



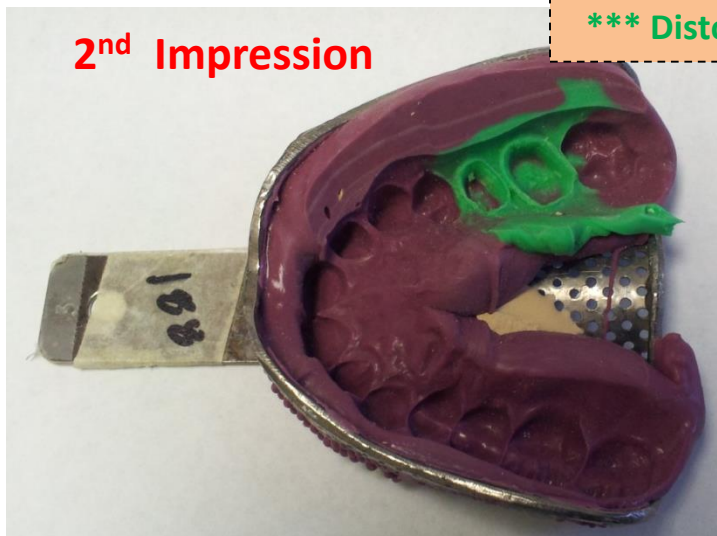
- Same doctor & same patient
- Same teeth #s



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

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

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



# Distorted Impression - Solution

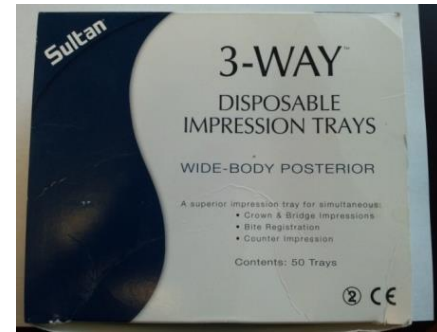
## (A) Why impression is distorted (one example)?

- 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

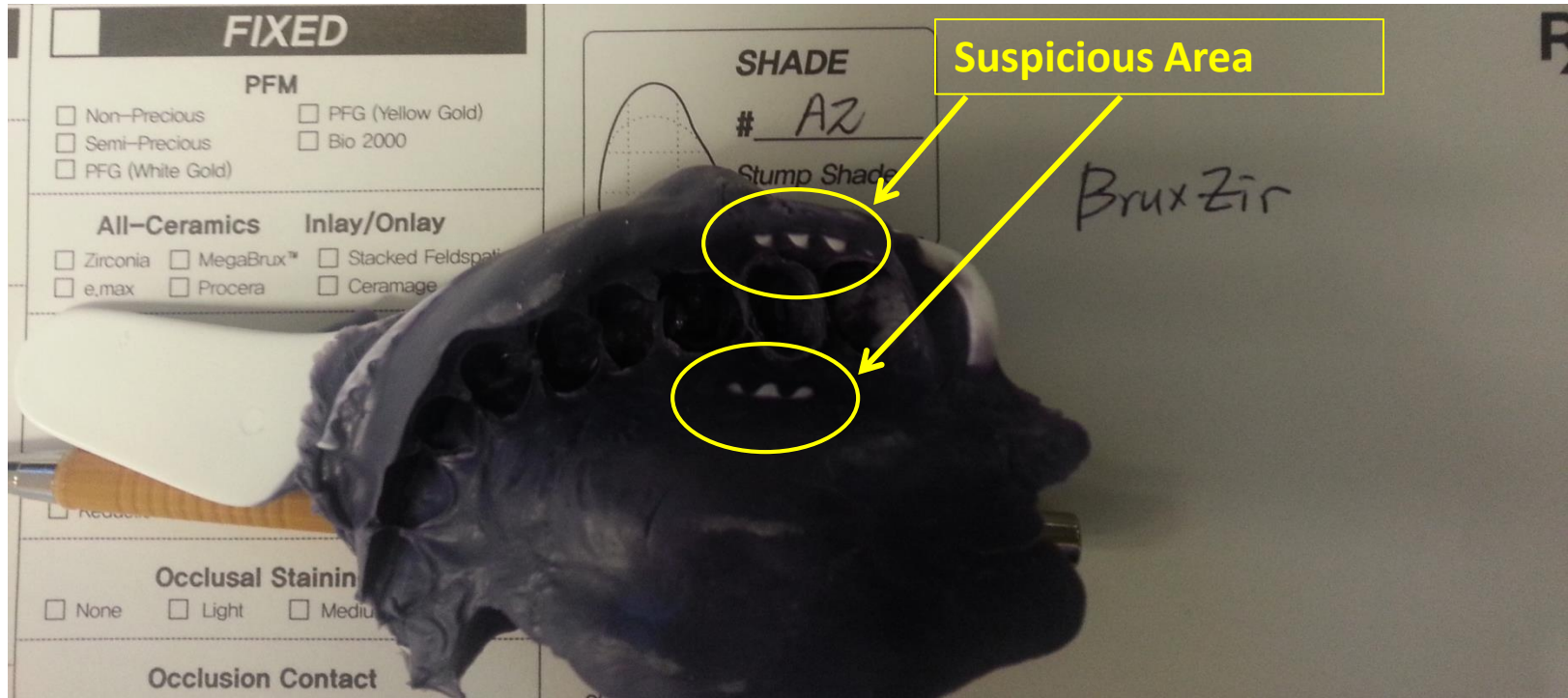
- Apply Adhesive fully inside AND outside of impression Tray
- If Adhesive is only applied on the inside of the tray, impression might NOT be secured and might separate from the tray  
➔ Eventually, crowns will NOT fit

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.

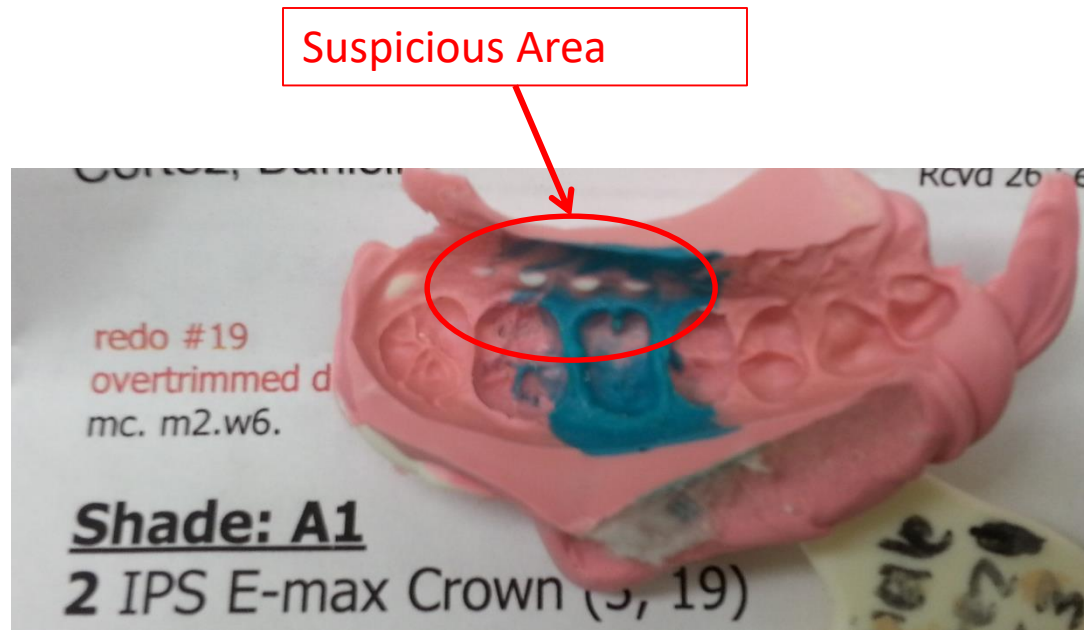
- I think you have material issue (Impression Tray), not prep issue:

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 2<sup>nd</sup> 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.

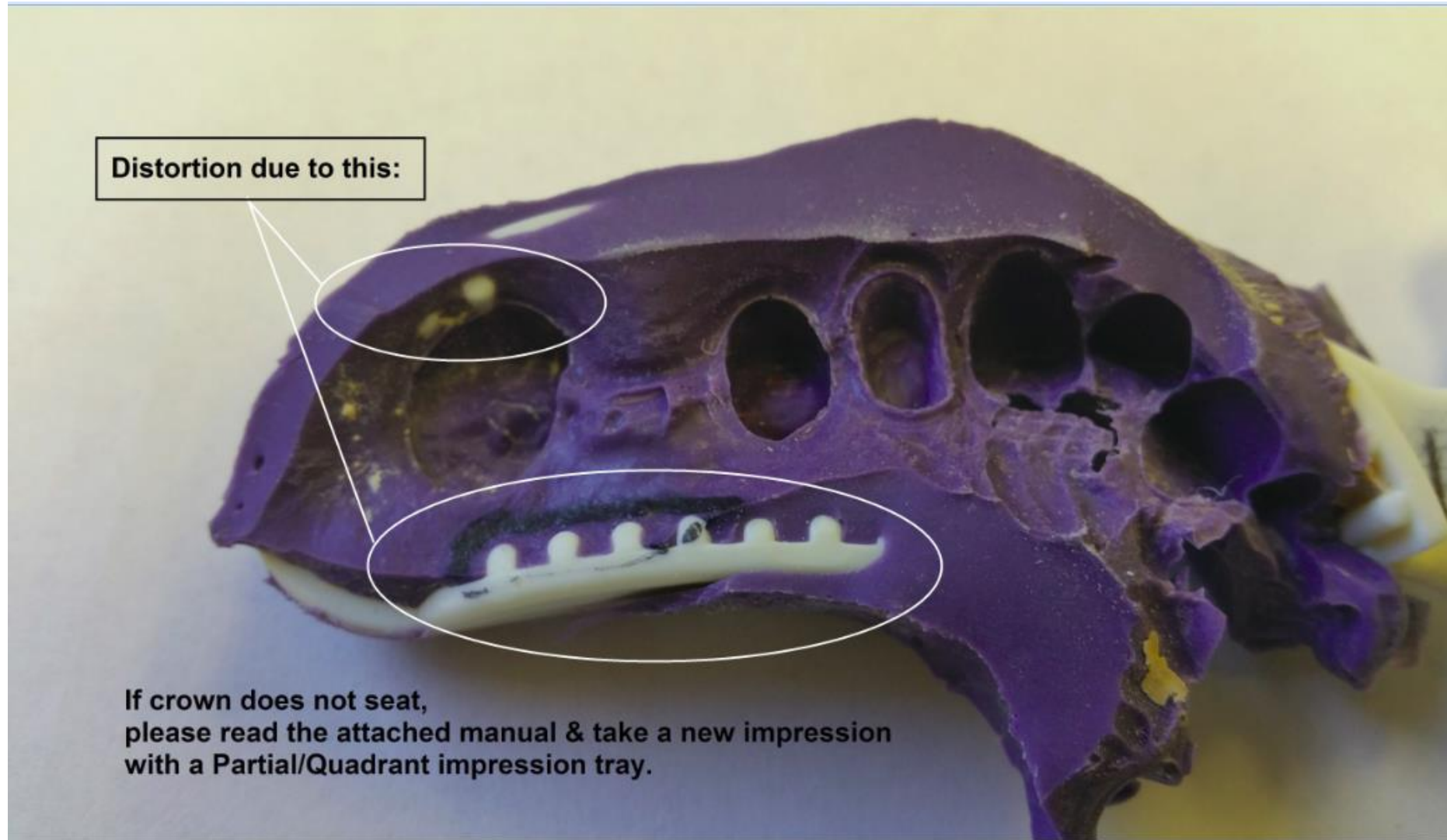
However, there is still a potential issue that it might not fit again due to the distortion of impression. Then, please use metal/plastic partial tray.

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

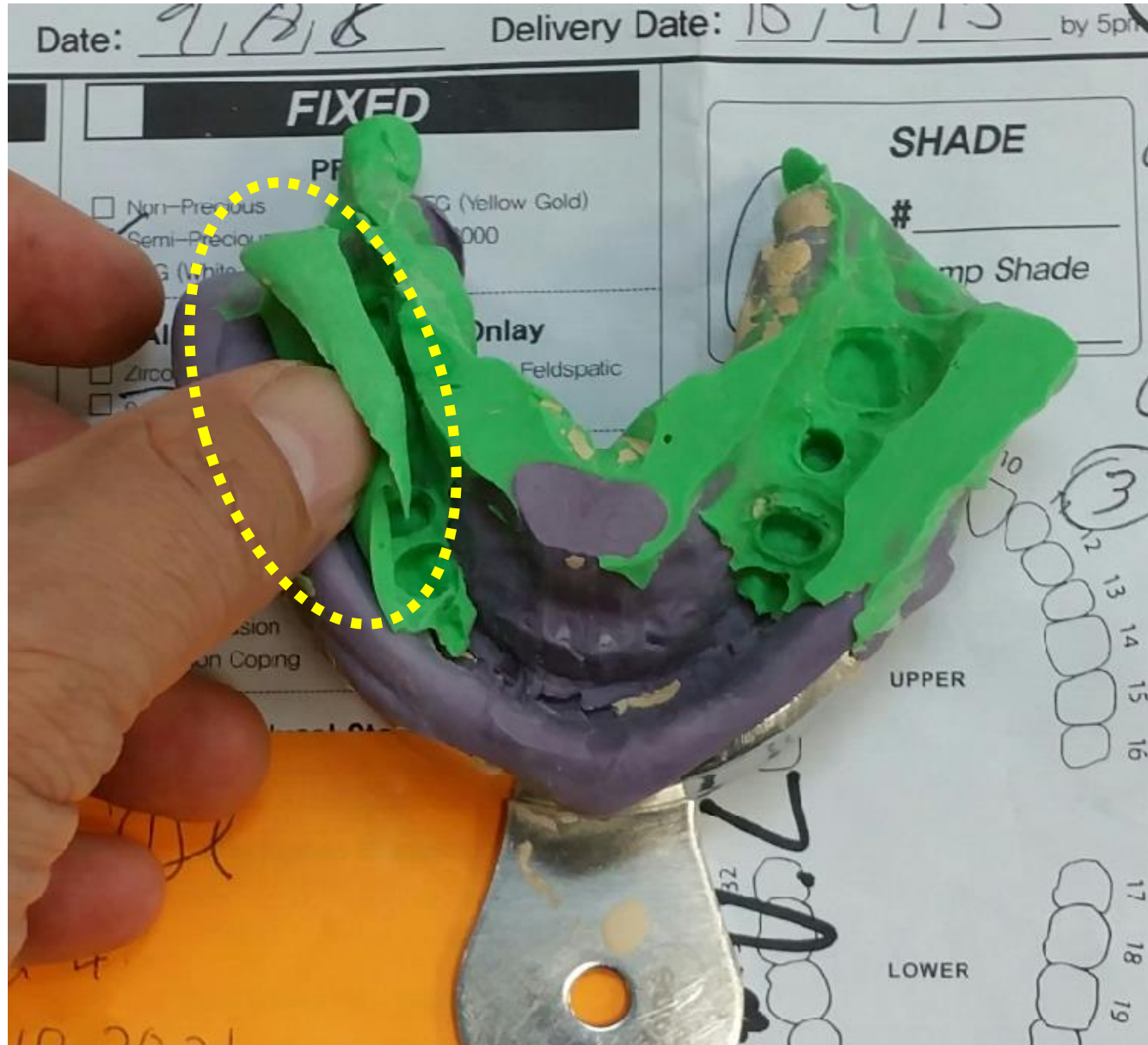
We have had the same issue with many other doctors.

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

# Distorted Impression : Example (3)



# Separated Impression -1





# Separated Impression -2



↑                      ↑  
\_\_\_\_\_  
Impression Tray   &   Impression  
are totally separated.

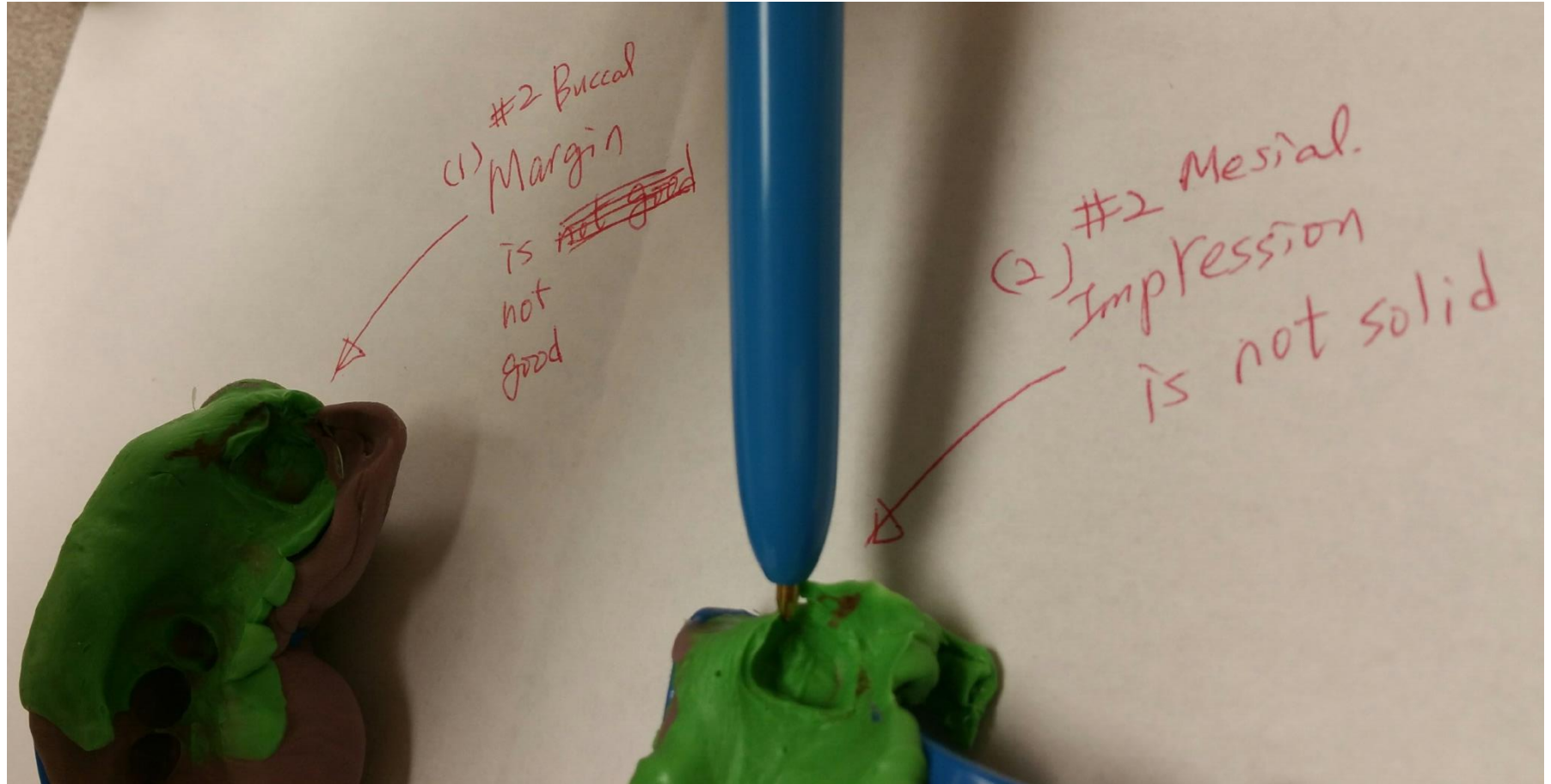
- ① Use Partial Tray w/ slot
- ② use enough Material (Impression)  
to grasp edge of Tray

# Same Case... But 3 Different Impressions



- Same Case ... But 3 different impressions

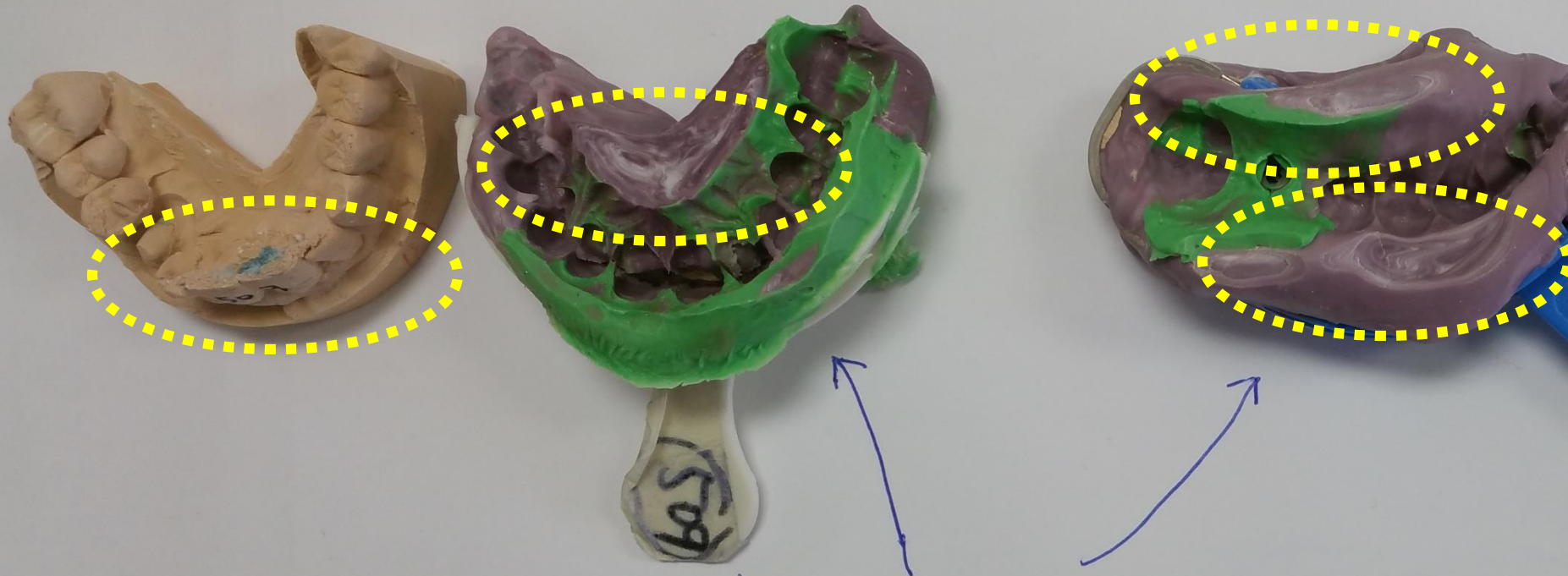
# Not Stable/Solid Impression



- 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 ?

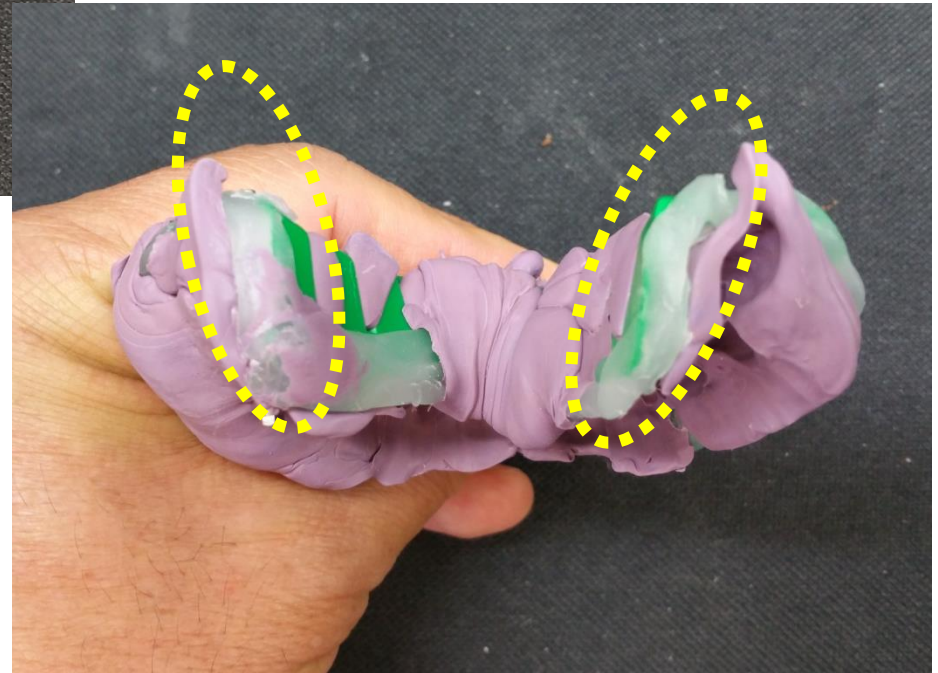
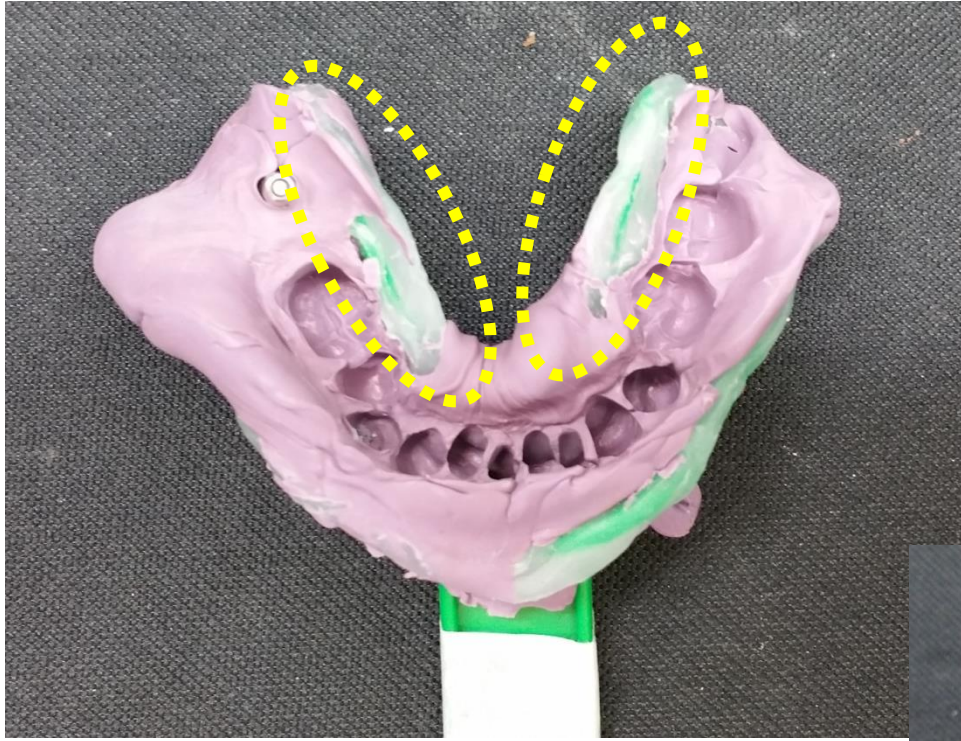
② Setting Time Issue ?  
→ Tube Type vs. Hand Type.

③ Putty

not mixed

a. chemical Bonding Issue

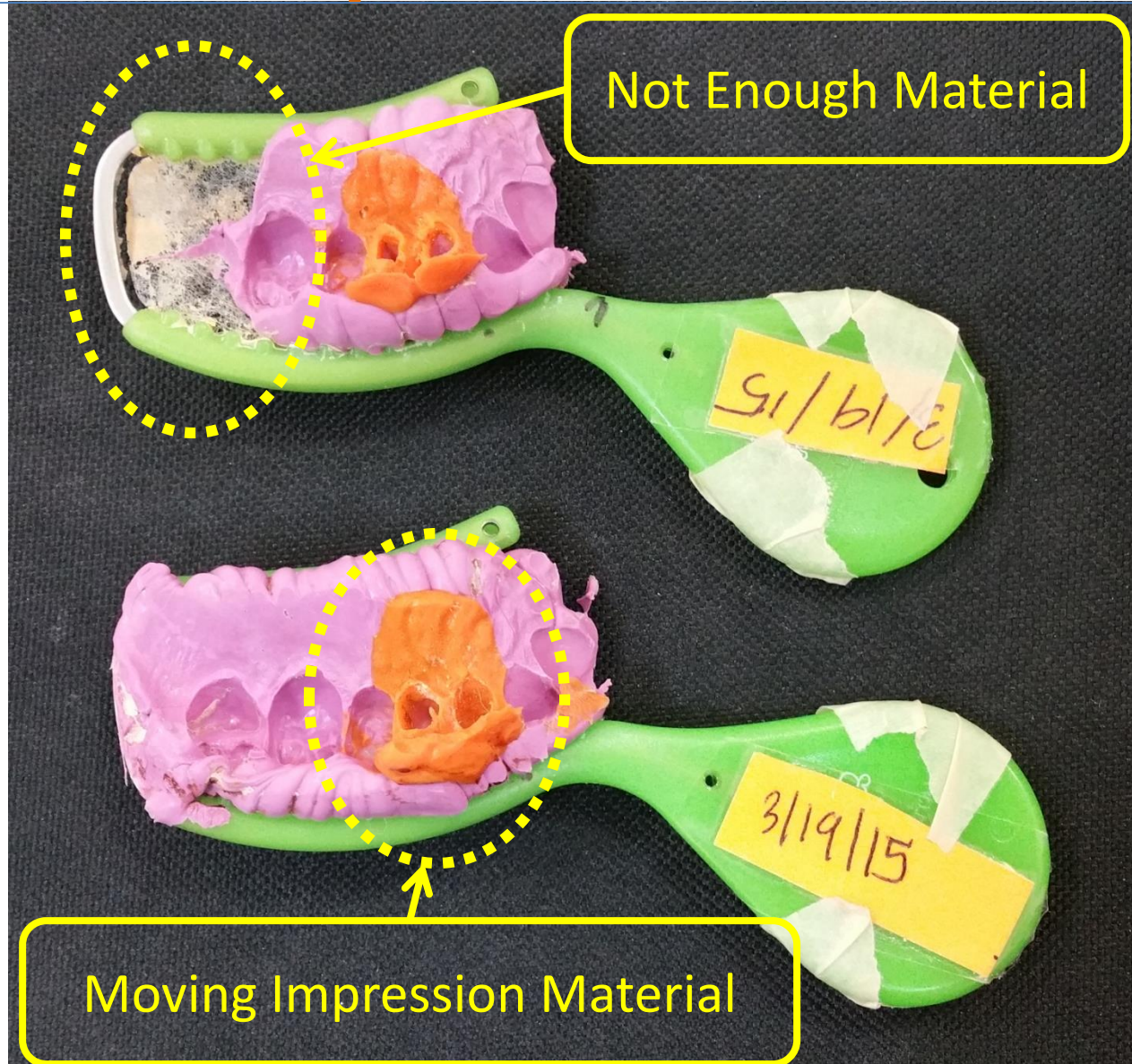
# Utility Wax may cause the separation of impression



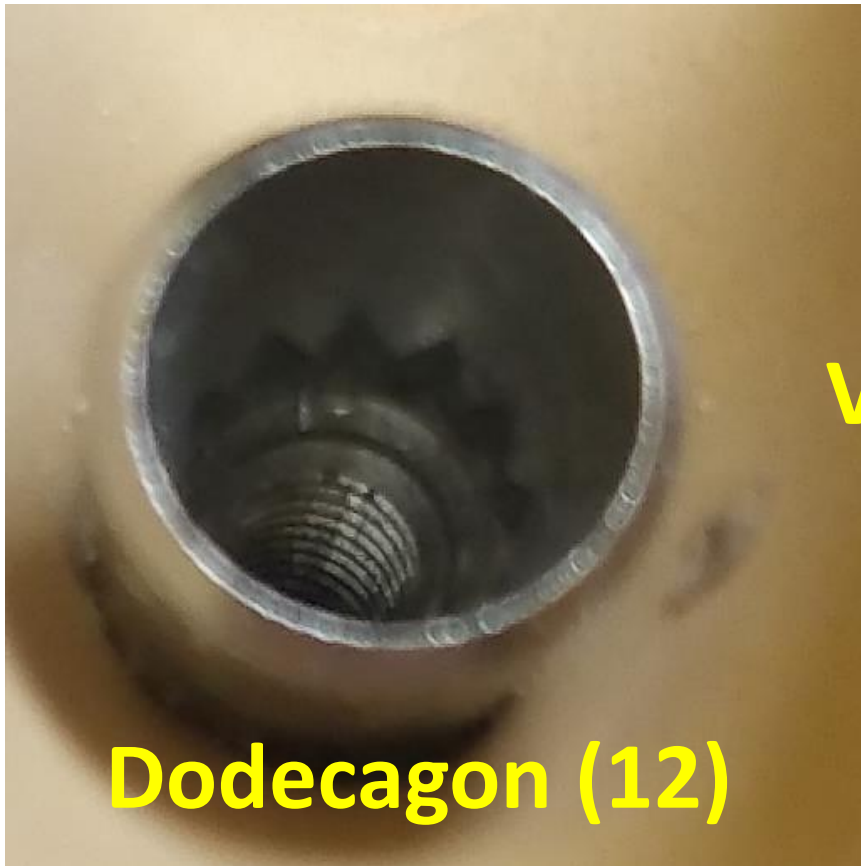


# Not Enough/Moving Material

→ Distorted Impression



# Rotated Abutment Due to Wrong Analog



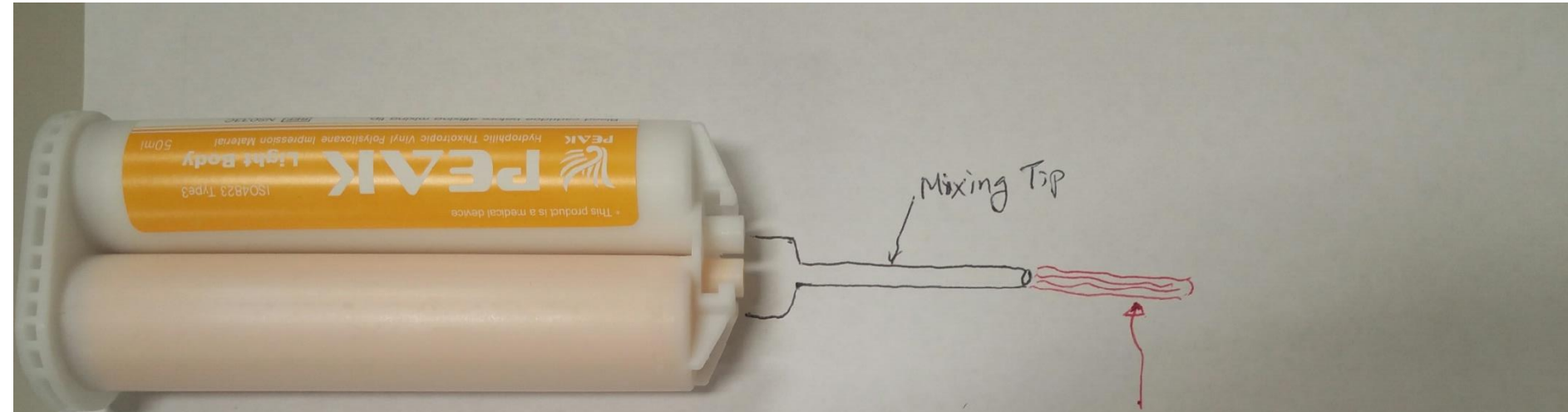
VS.



Dodecagon (12)

Hexagon (6)

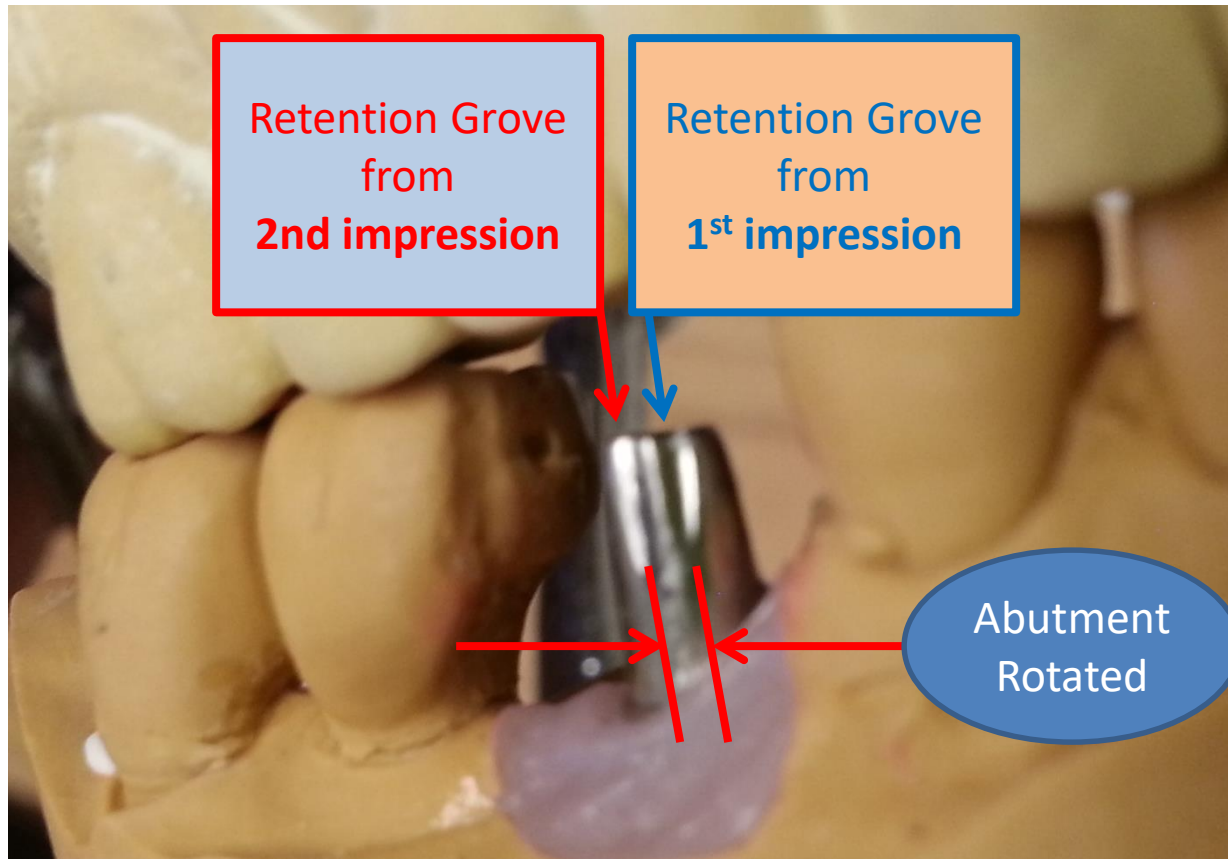
# When opening a new cartridge → Squeeze out before using



- 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



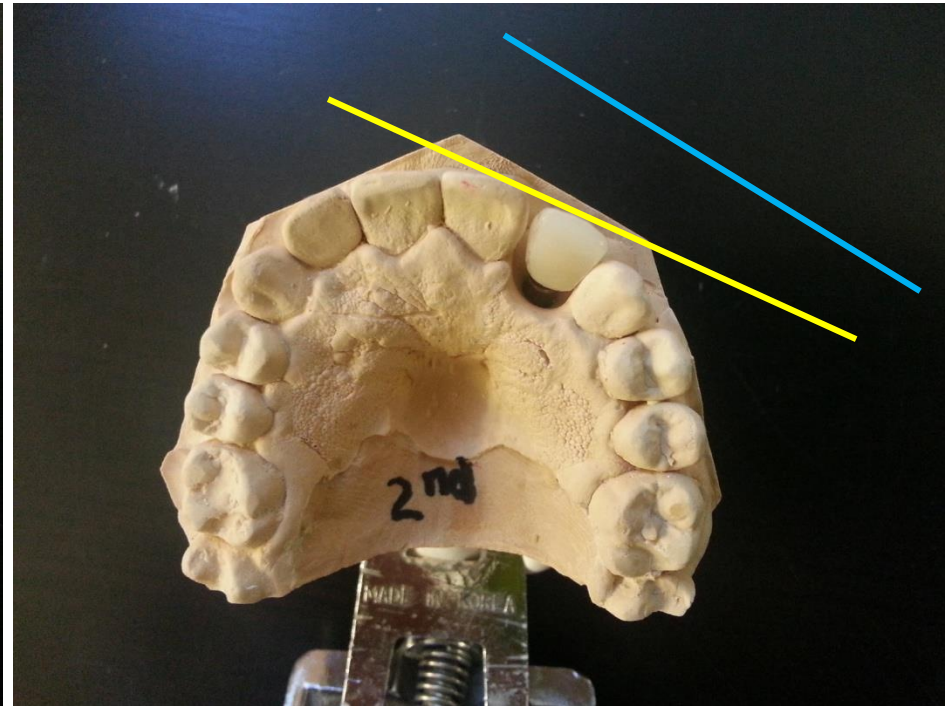
# Rotated Abutment Due to Wrong Impression



- We always make Retention Grove 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 Groves 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 1<sup>st</sup> 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



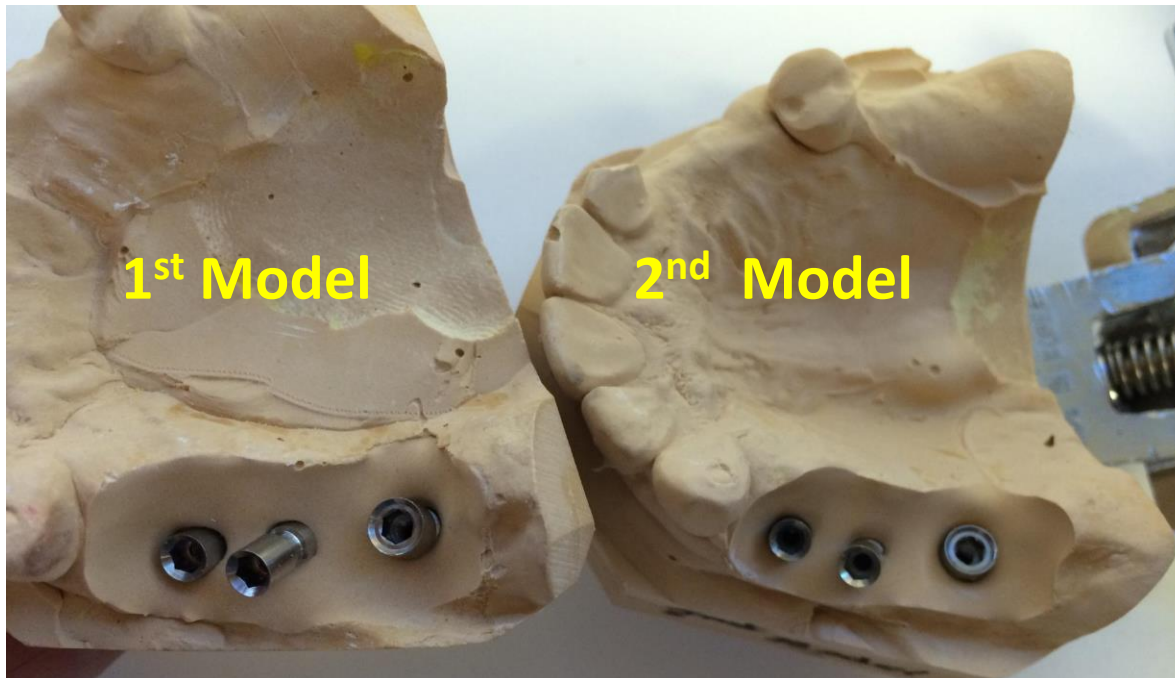
# Different Impressions : 1<sup>st</sup> vs. 2<sup>nd</sup>



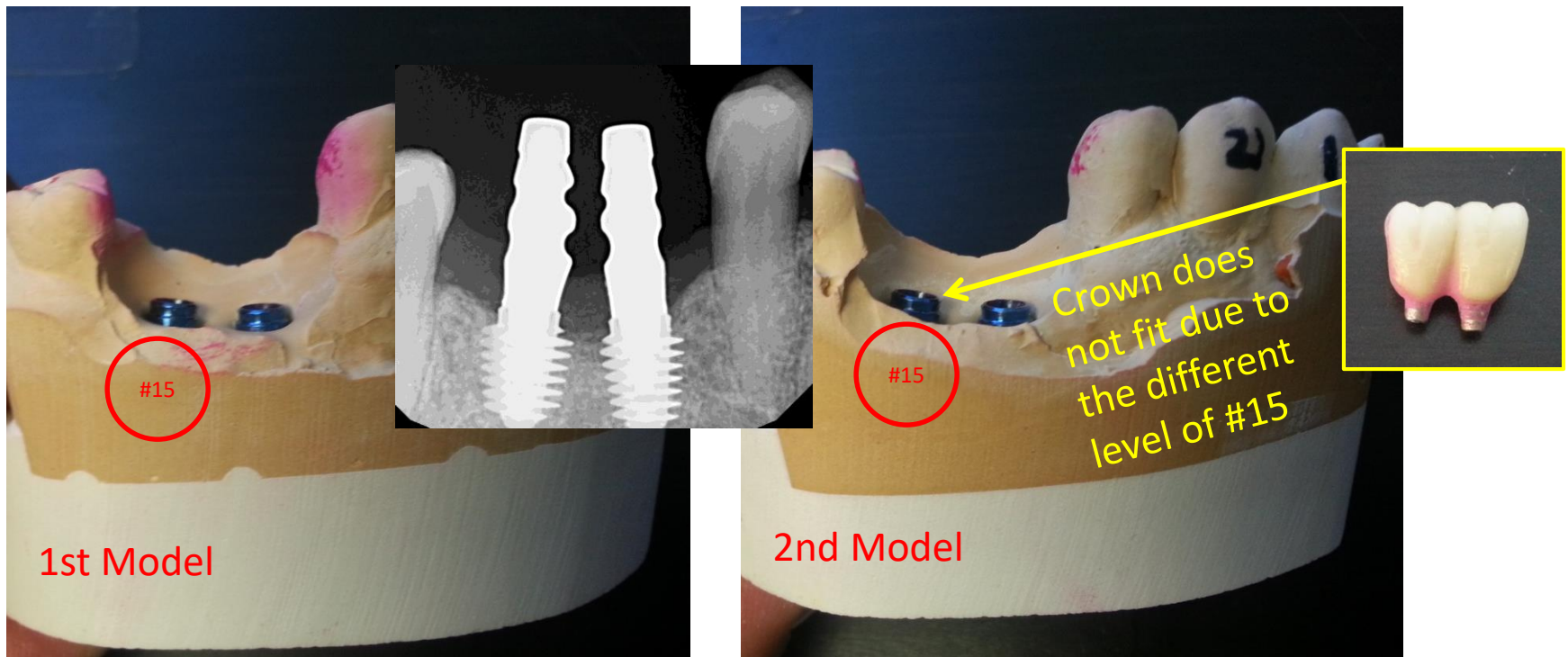
- 1<sup>st</sup> Model and 2<sup>nd</sup> Model are not the same for some reason

- 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: 1<sup>st</sup> vs. 2<sup>nd</sup> & Moving Impression Coping



**Issue:** (1) Impressions are not the same (1<sup>st</sup> vs. 2<sup>nd</sup>),  
(2) Impression Coping on #15 is moving in the 2<sup>nd</sup> impression.

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

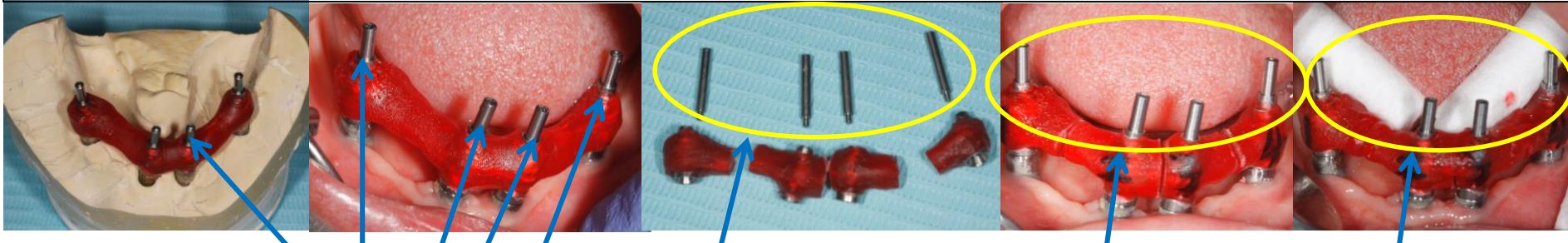
**Our plan:** **Lab** cut splinted crown, customize to fit to the 2<sup>nd</sup> model, and do Duralay.

**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



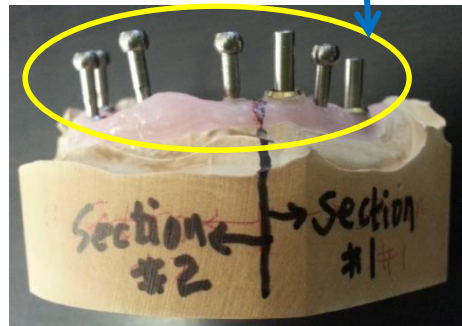
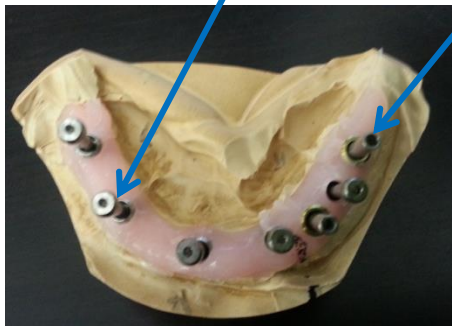
These are screws

## Your Case :

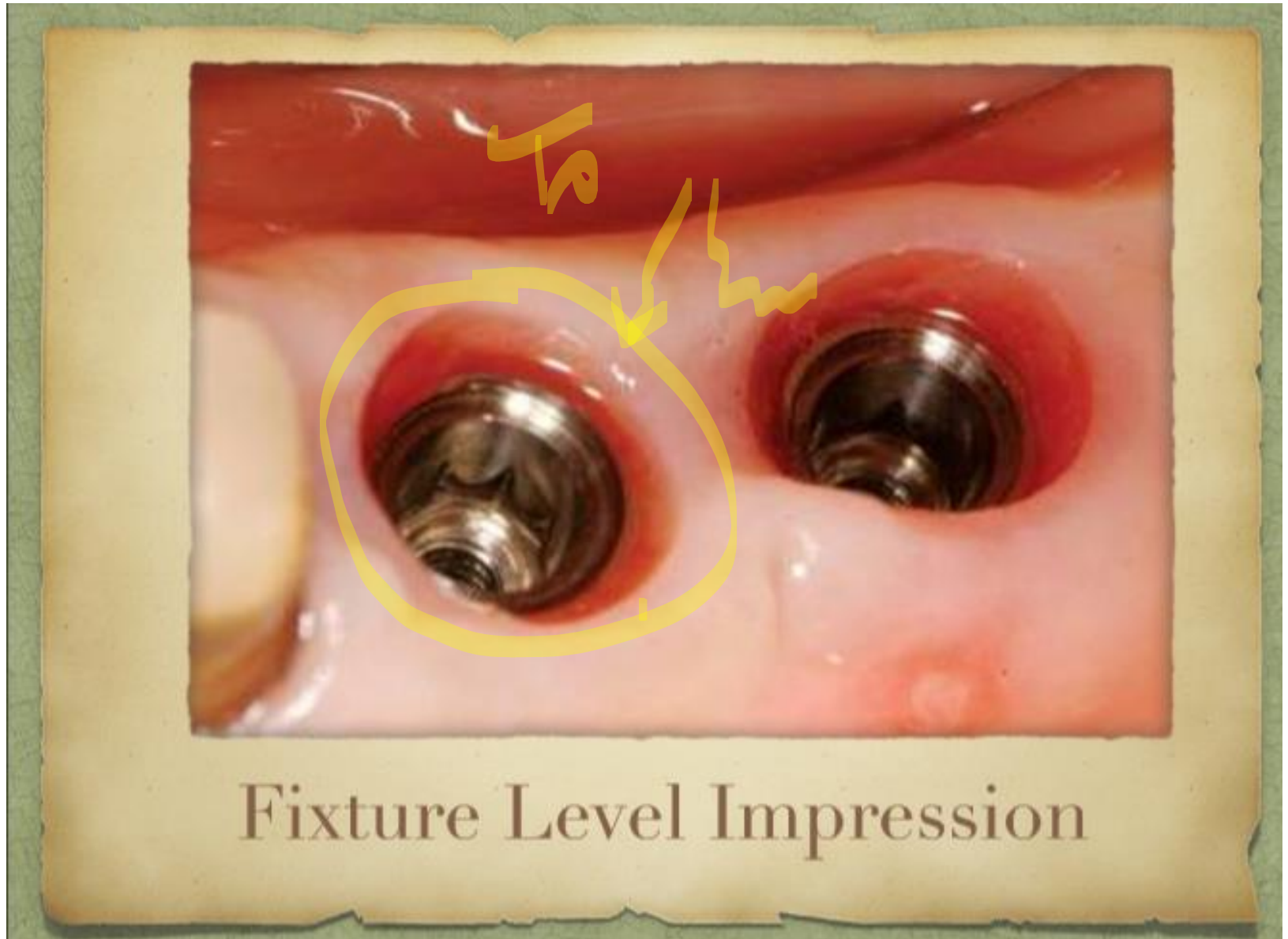
These are screws (7 ea)

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

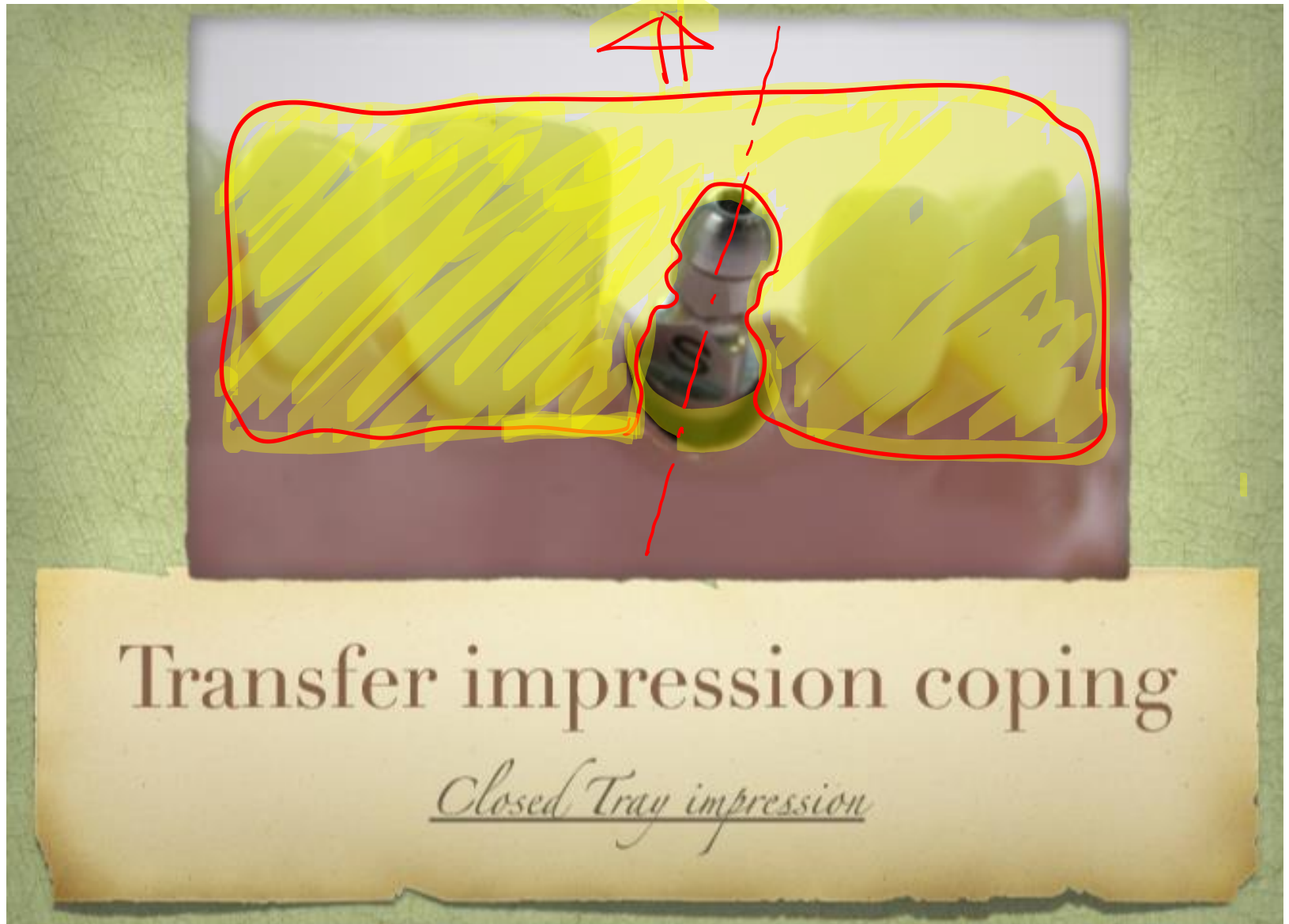
In the new impression, all holes of impression copings are clogged with impression material except one because Dr. could not use screws. Dr. might use different technique to make impression copings be fully seated without screws



# Implant Level Impression



# Transfer Impression Coping – Close Tray





# Transfer Impression Coping – Close Tray

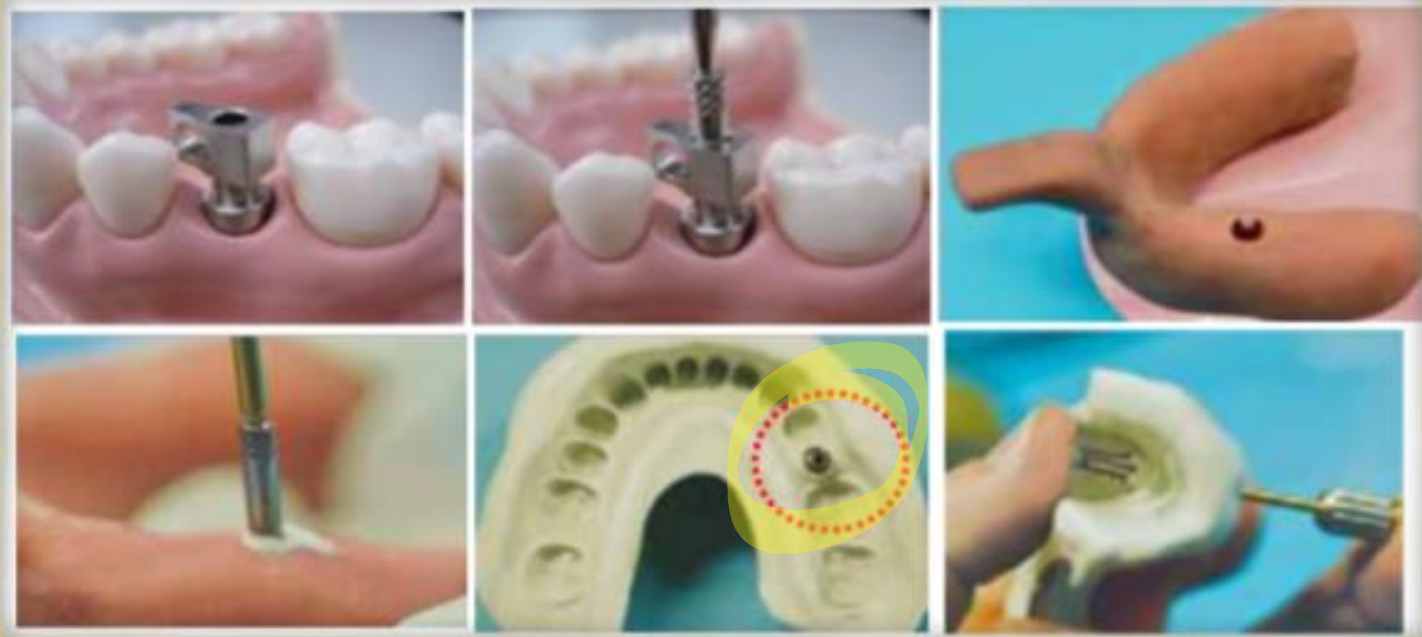


Transfer impression coping

# Pick-up Impression Coping – Open Tray



# Pick-up Impression Coping – Open Tray



Pick-up Impression coping

# Pick-up Impression Coping – Advantages

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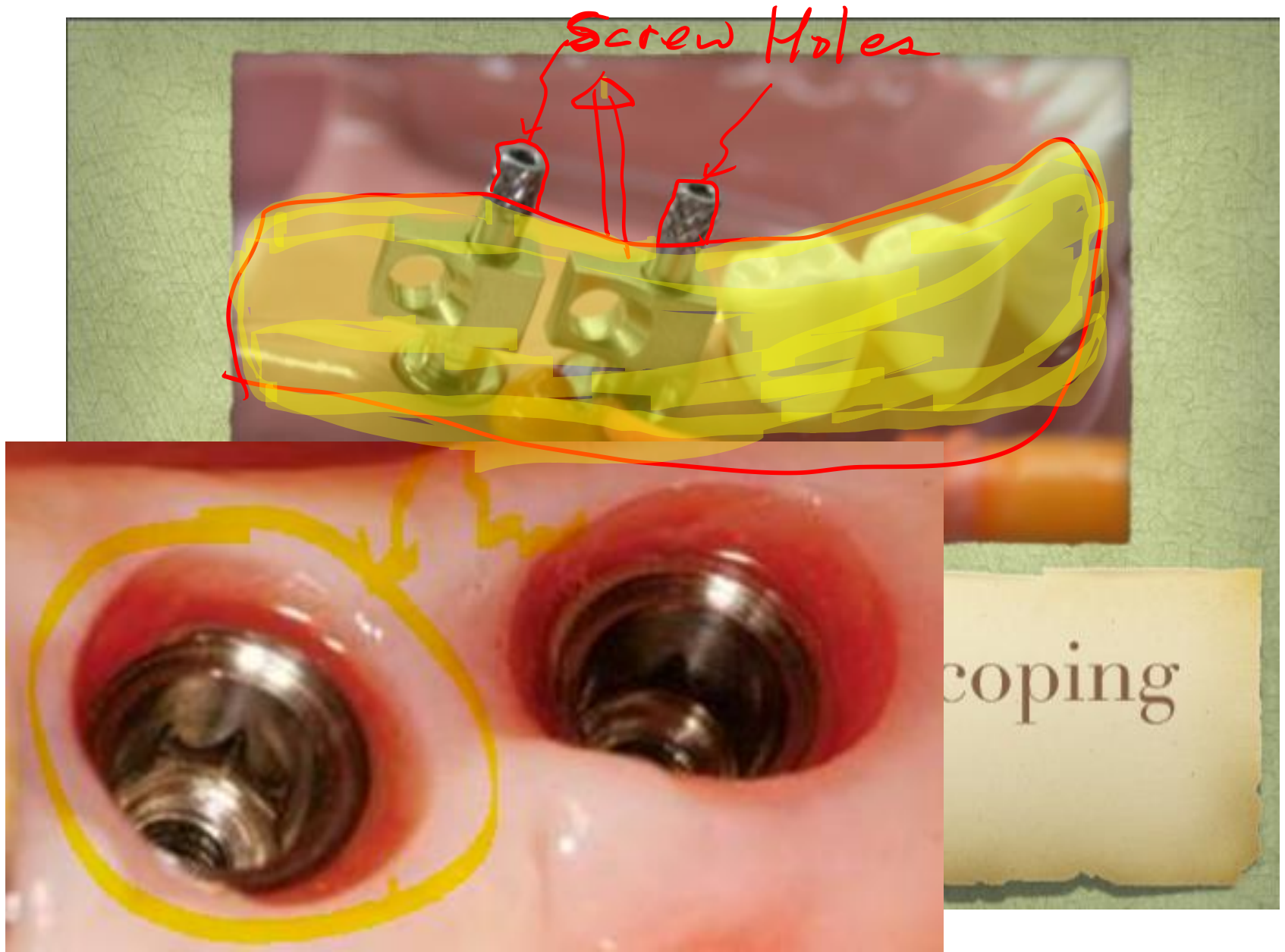
- **More Accurate**
- **Less Distortion**
- **Ideal for Multiple Implants**
- **Ideal for Angled Implants**
- **MUST for Full Mouth**



# Transfer Impression Coping – Close Tray

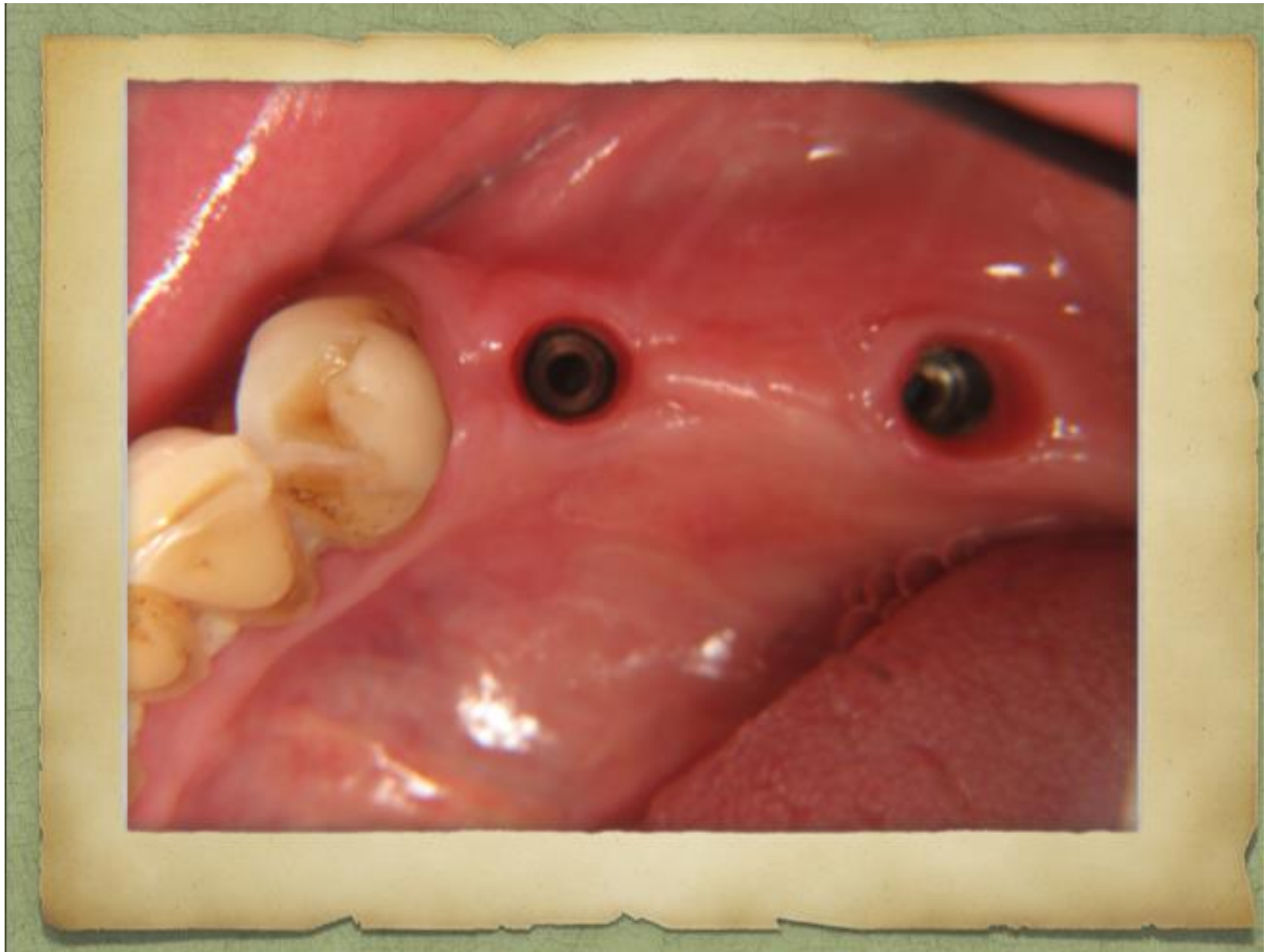


# Pick-up Impression Coping – Open Tray

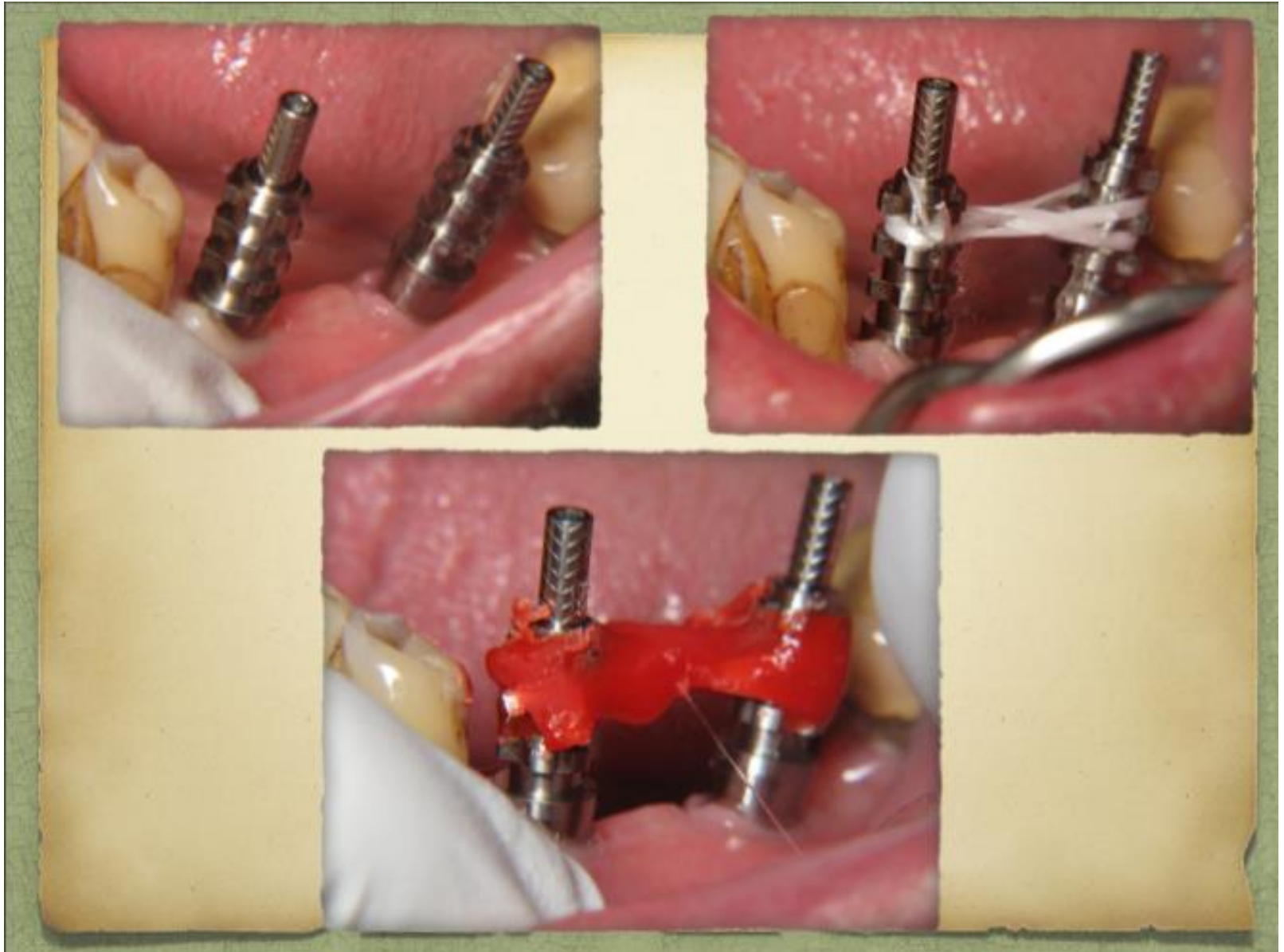




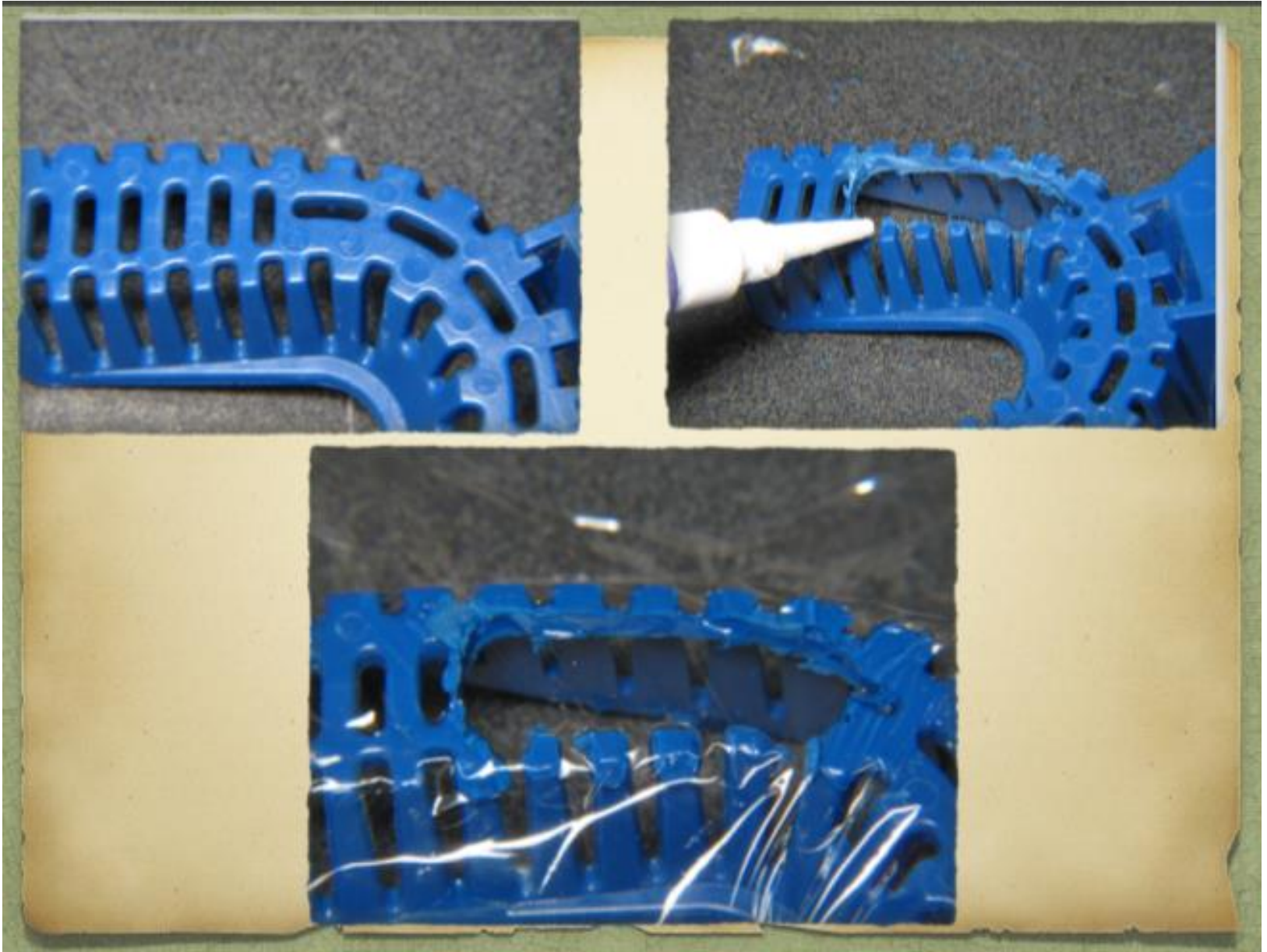
# Pick-up Impression Coping – Open Tray



# Pick-up Impression Coping – Open Tray



# Pick-up Impression Coping – Open Tray





# Pick-up Impression Coping – Open Tray

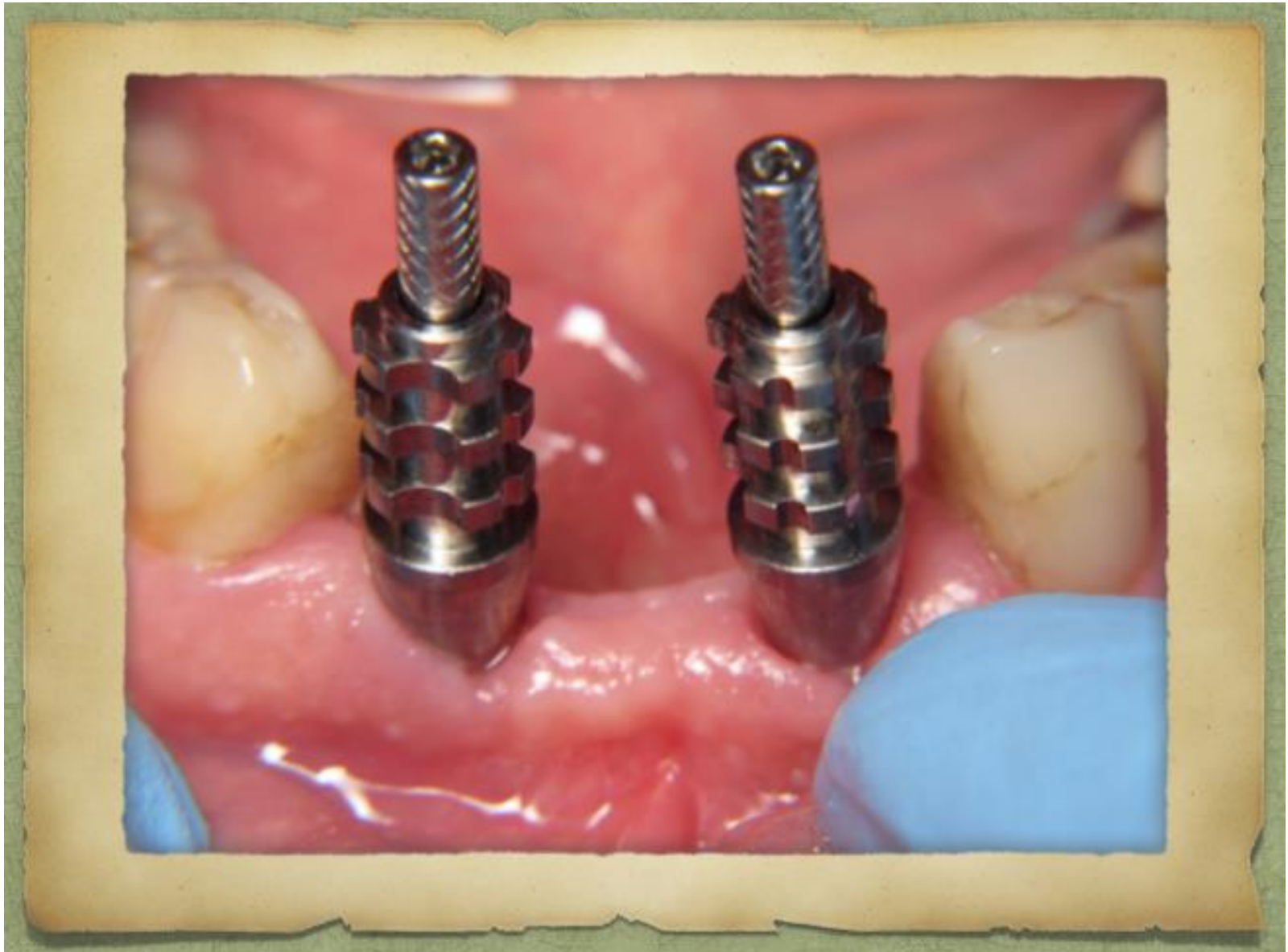




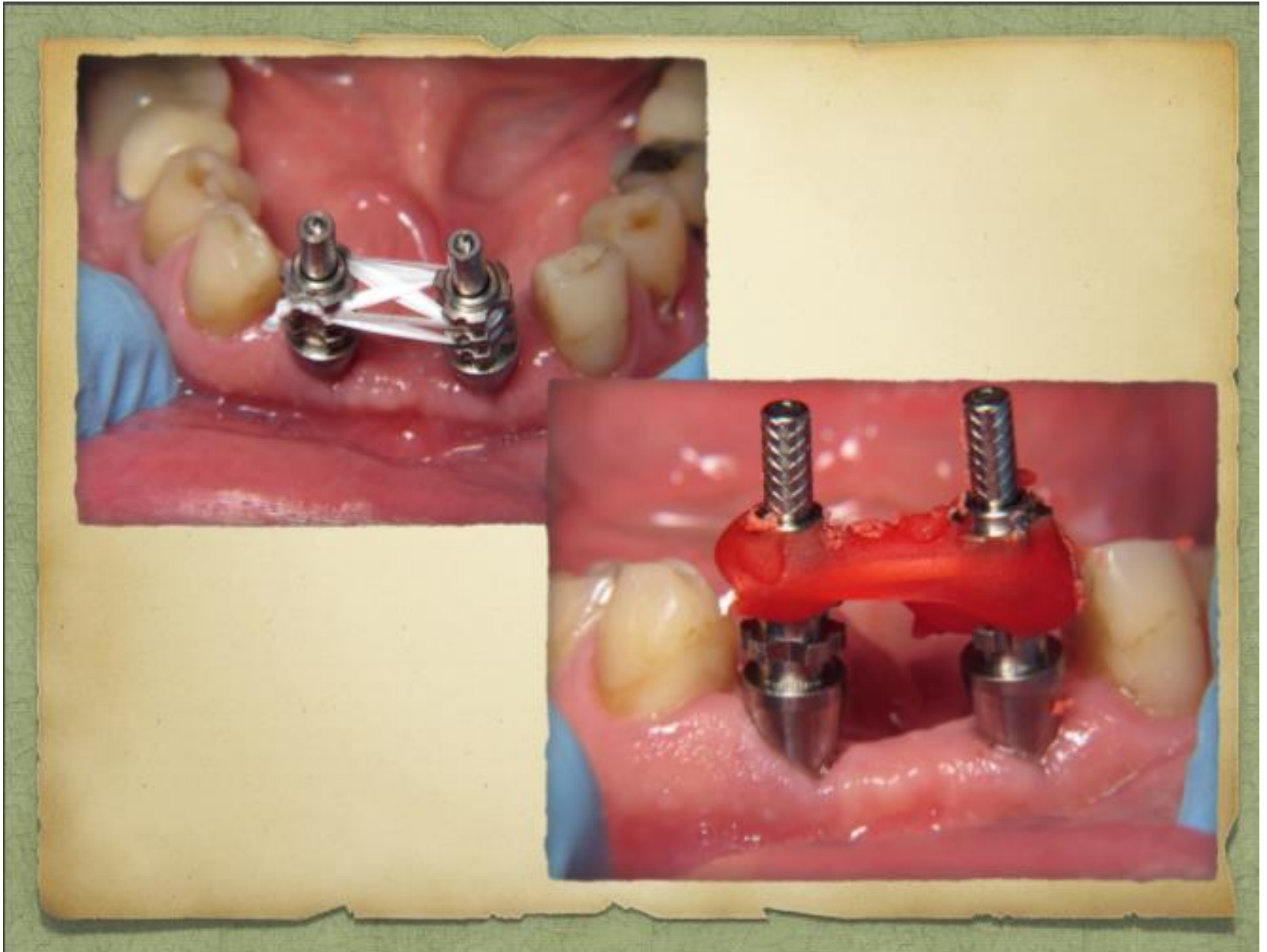
# Pick-up Impression Coping – Open Tray



# Pick-up Impression Coping – Open Tray



# Pick-up Impression Coping – Open Tray





# Pick-up Impression Coping – Open Tray

