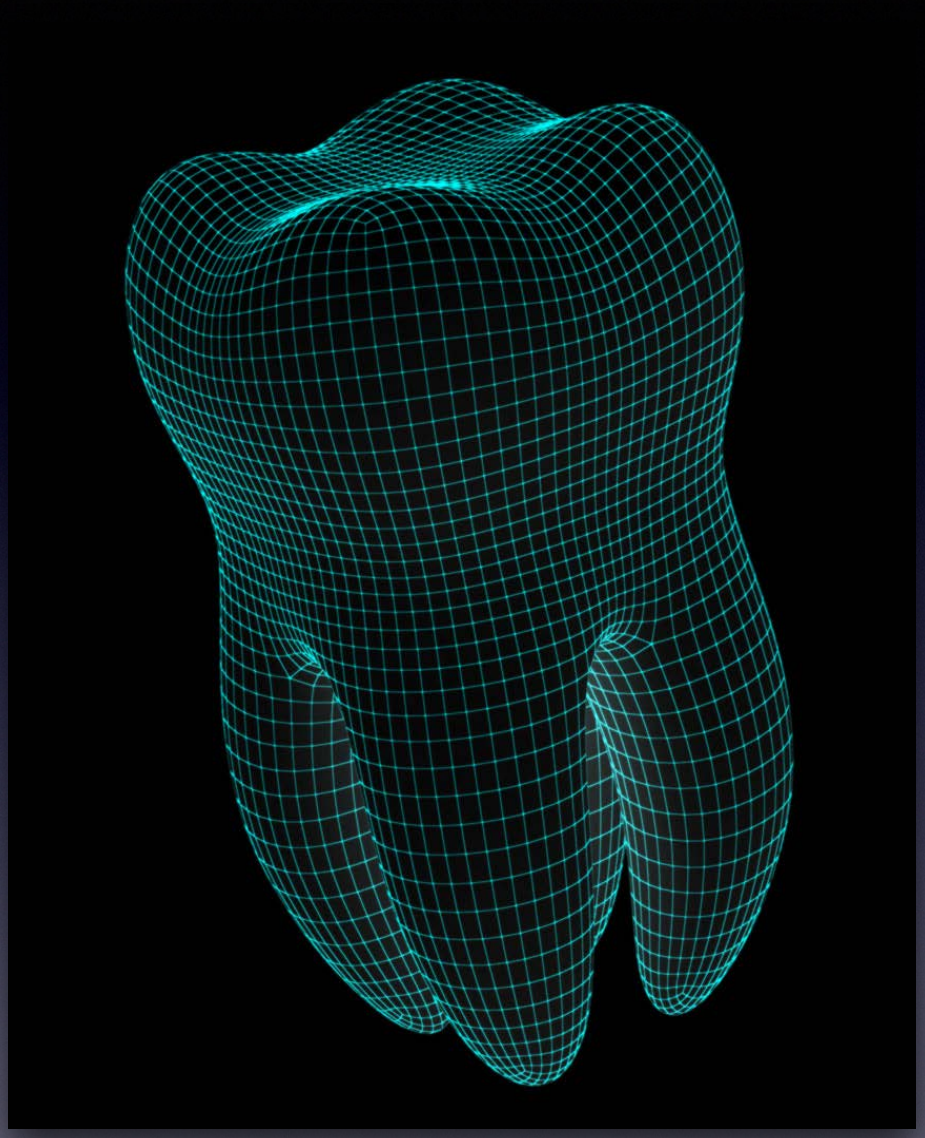


DIGITAL DENTISTRY

“CARIVU DECAY DETECTION BY DEXIS”

Minimally Invasive Dentistry

- MID - acronym
- “New” model?
- Emphasis on conserving Tooth Structure
- How do we accomplish MID?

1. Risk Assessment
2. Early Caries Detection
3. Restoration of tooth structure when needed

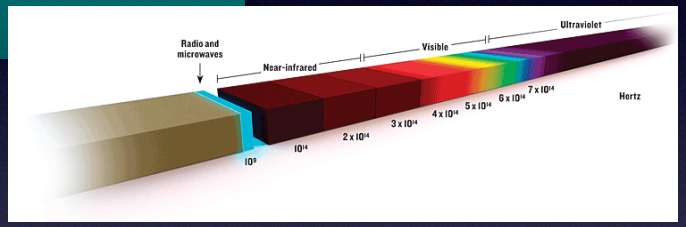
Risk Assessment Tools

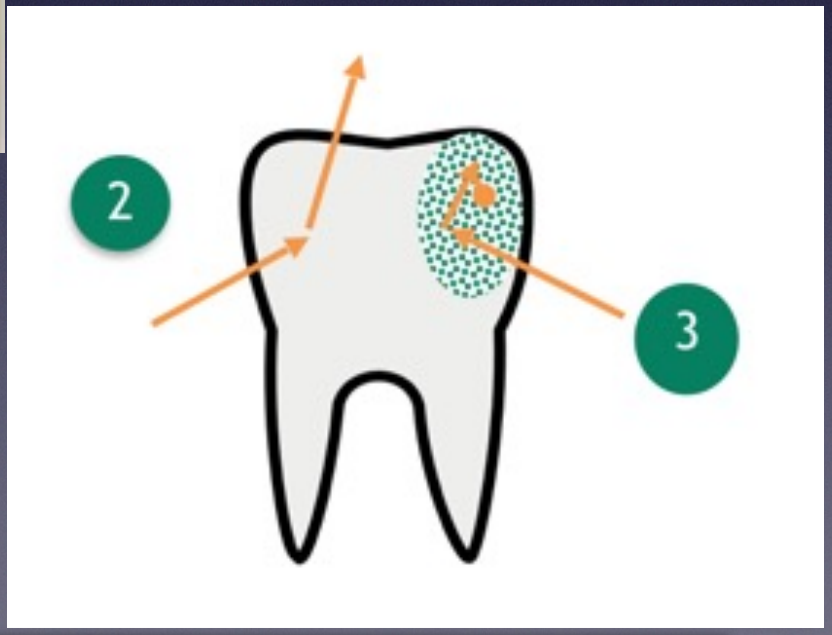
- Explorer - limited accuracy
- Radiographs - can have some limitations
- CAMBRA (caries management by risk assessment) - forms from the ADA
- The International Caries Assessment and Detection System (ICADS)

Now - there's CariVu by Dexis

How does it work?

1-Flexible “arms” on end of tip straddle the tooth and Near-infrared photons are emitted through these arms





2-At this long wavelength, the enamel becomes transparent to the photons “it glows”

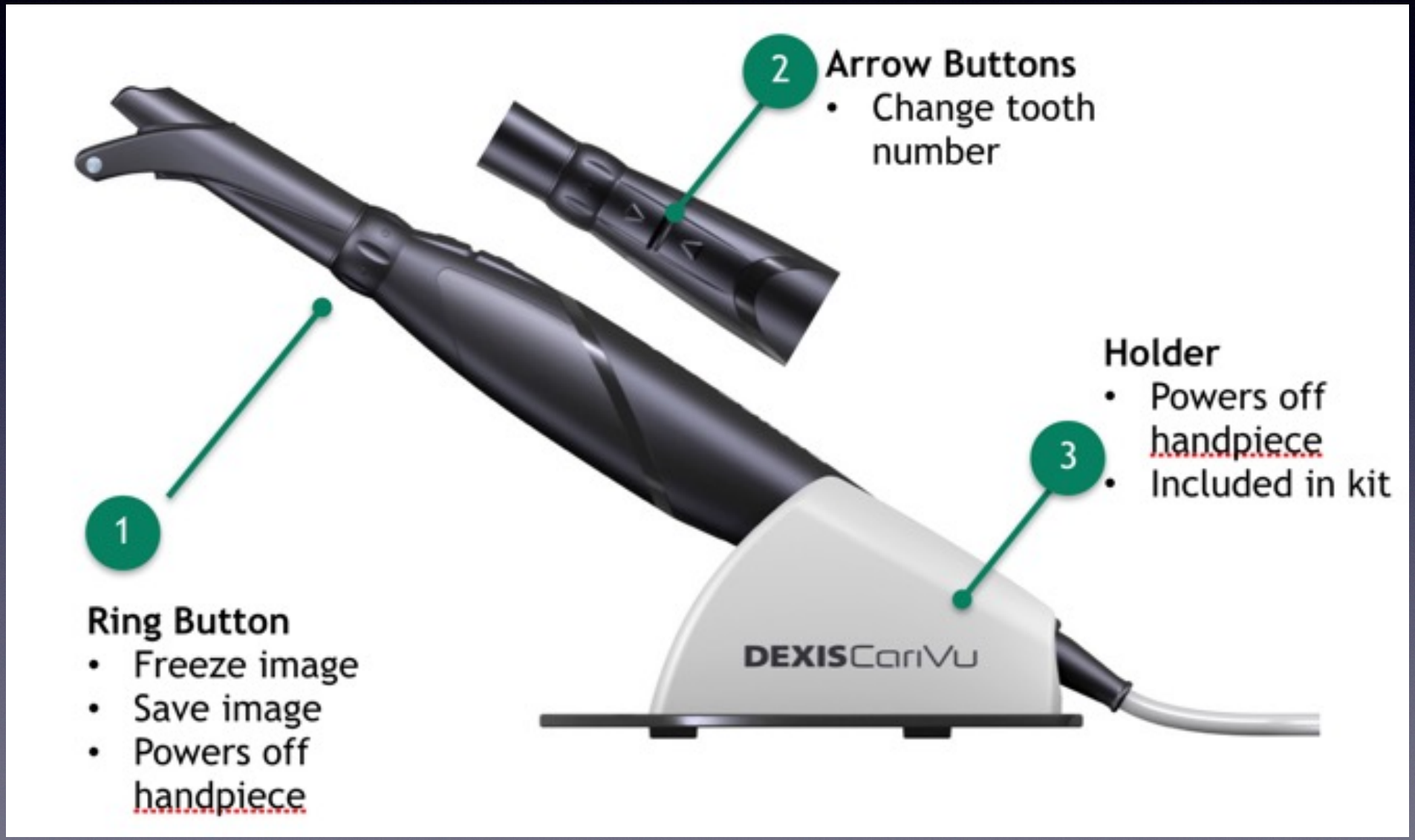
3-Porous lesions trap and absorb the photons.

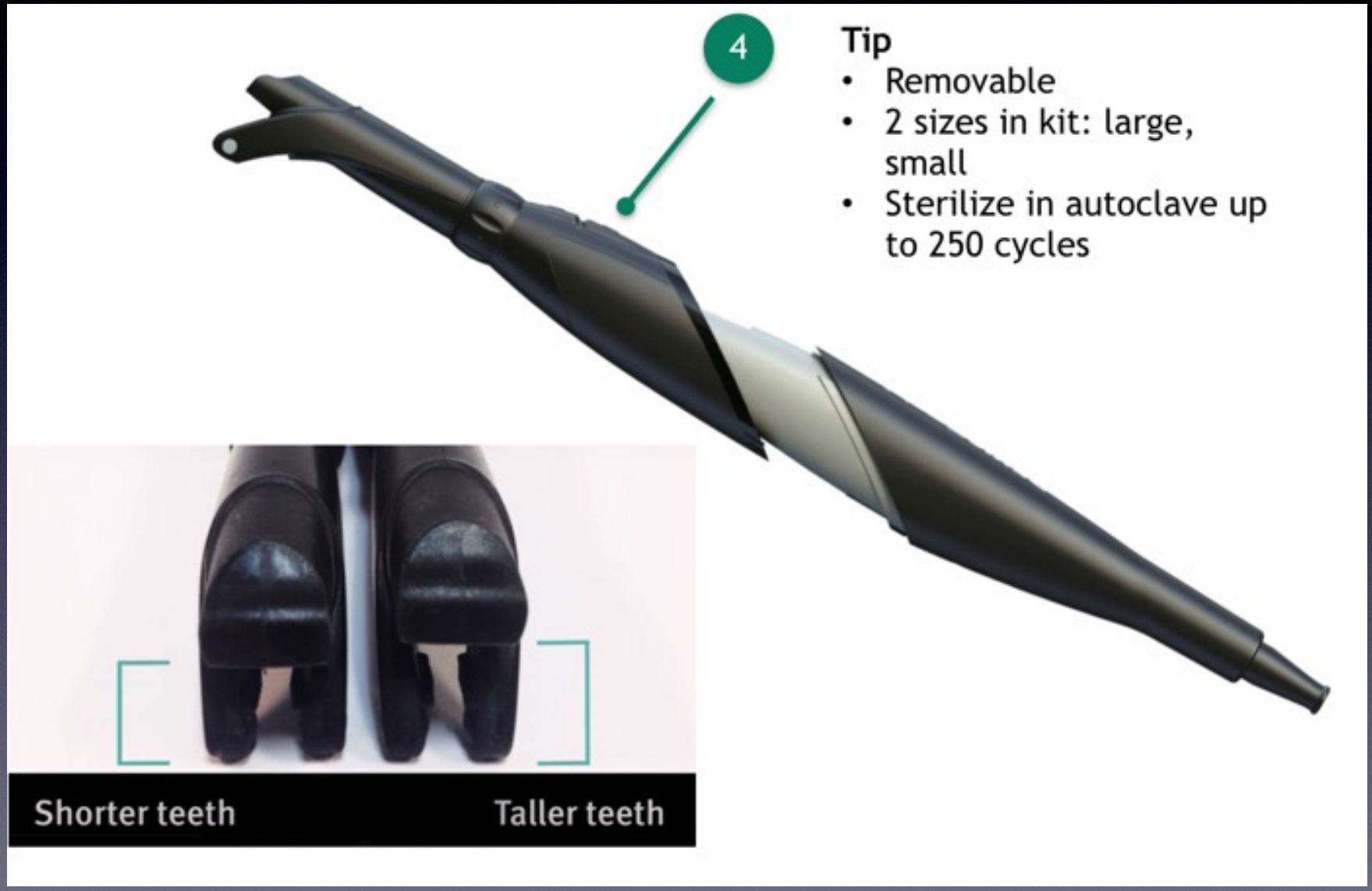
The Final Image

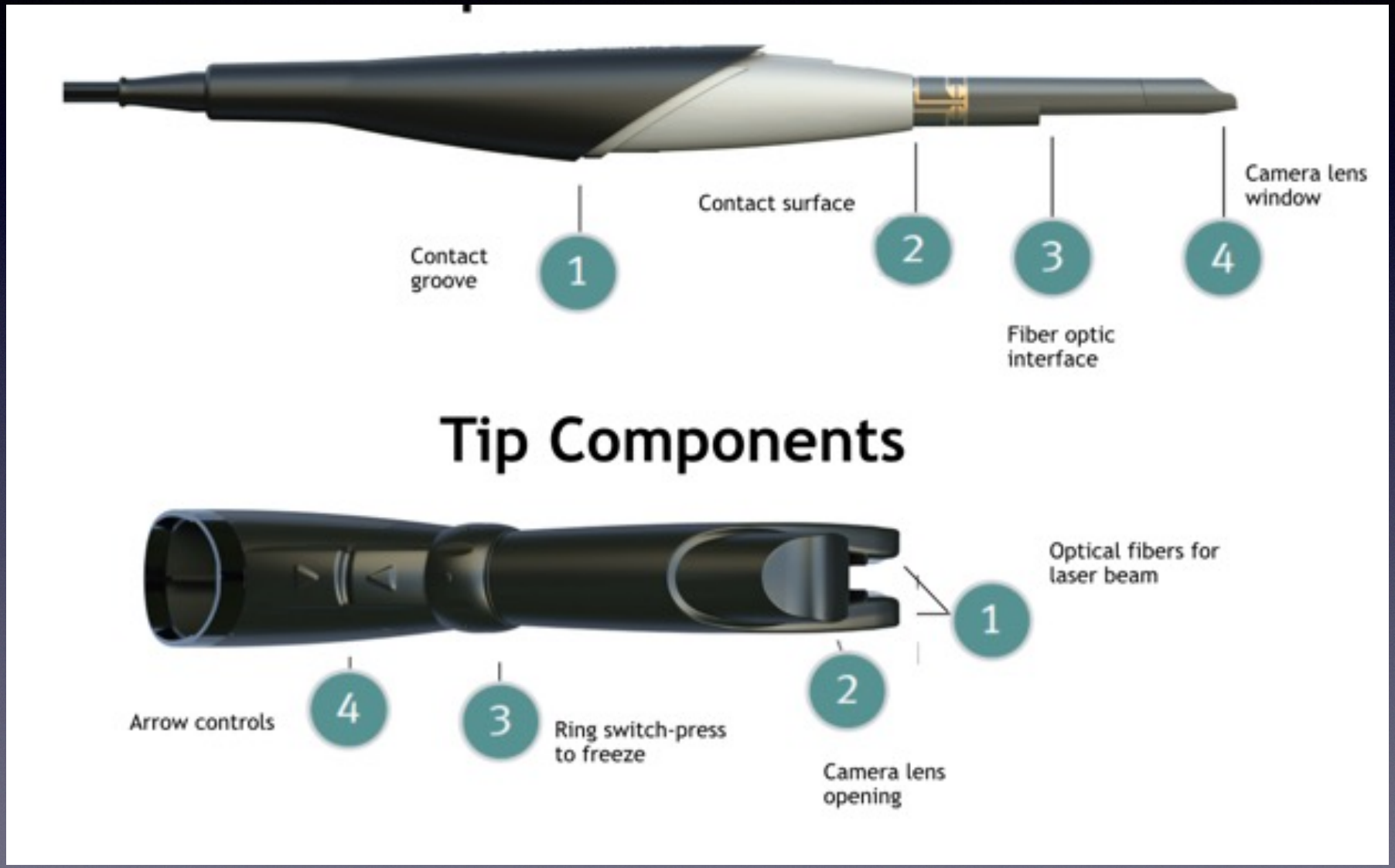
Thus, lesions and cracks will appear as dark (radiolucent)areas. (Restorations will show as dark areas as they block the path of light)

Looks like an “x-ray” but without the RADIATION

Overview of the Unit

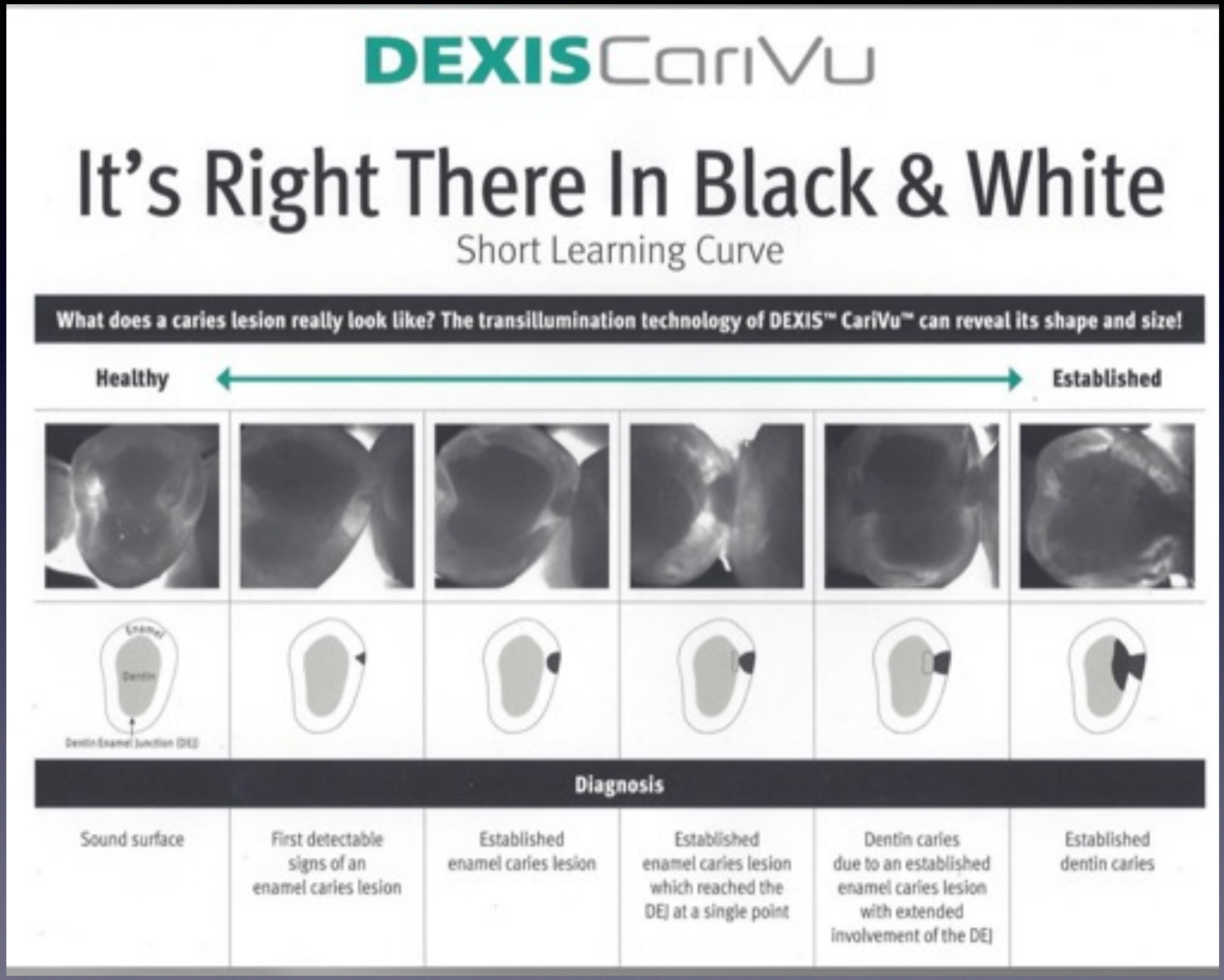



4
Tip
• Removable
• 2 sizes in kit: large, small
• Sterilize in autoclave up to 250 cycles
Shorter teeth
Taller teeth


Contact groove
1
Contact surface
2
3
4
Camera lens window
Fiber optic interface
Tip Components
Optical fibers for laser beam
1
2
Camera lens opening
3
Ring switch-press to freeze
4
Arrow controls


3 minutes in a Statim
10 mins. in an Autoclave
275°F/135°C
DEXISConVu
DEXISConVu

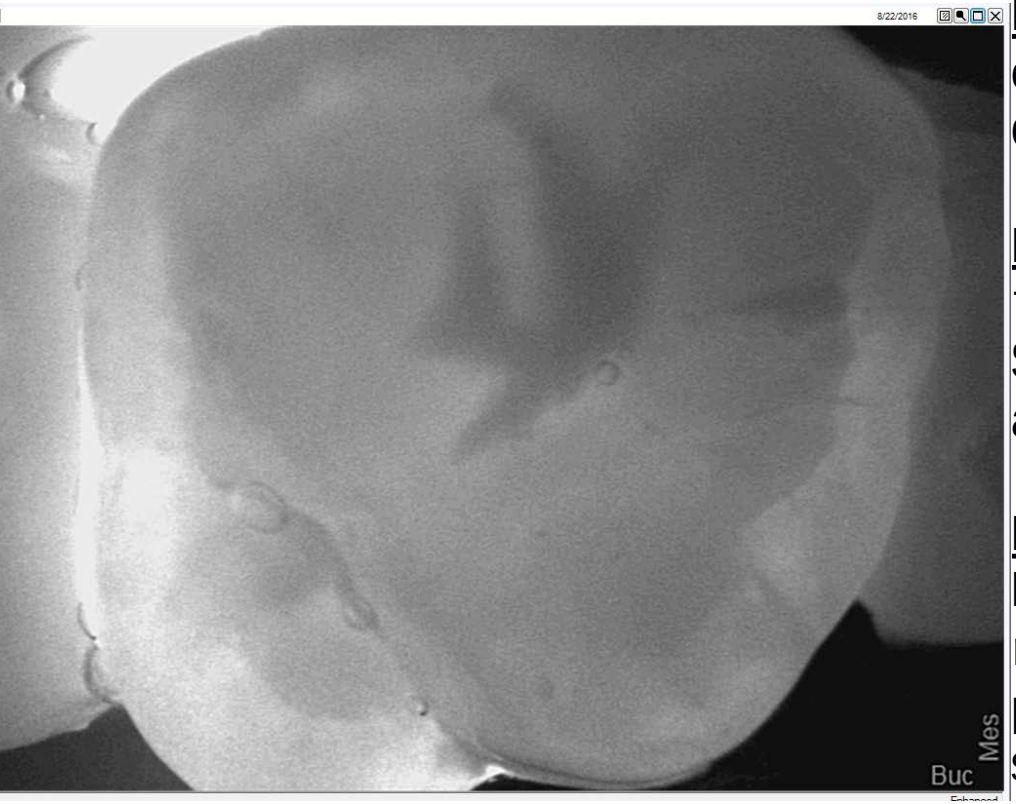
Image examples



Patient profile:16 years of age.No history of decay. OHI(floss daily, fl TP, and 6mo recall with sealants).

Presents with: CariVu:19 reveals healthy tooth structure with an intact sealant material placed 5 years ago. No apparent suspicious areas

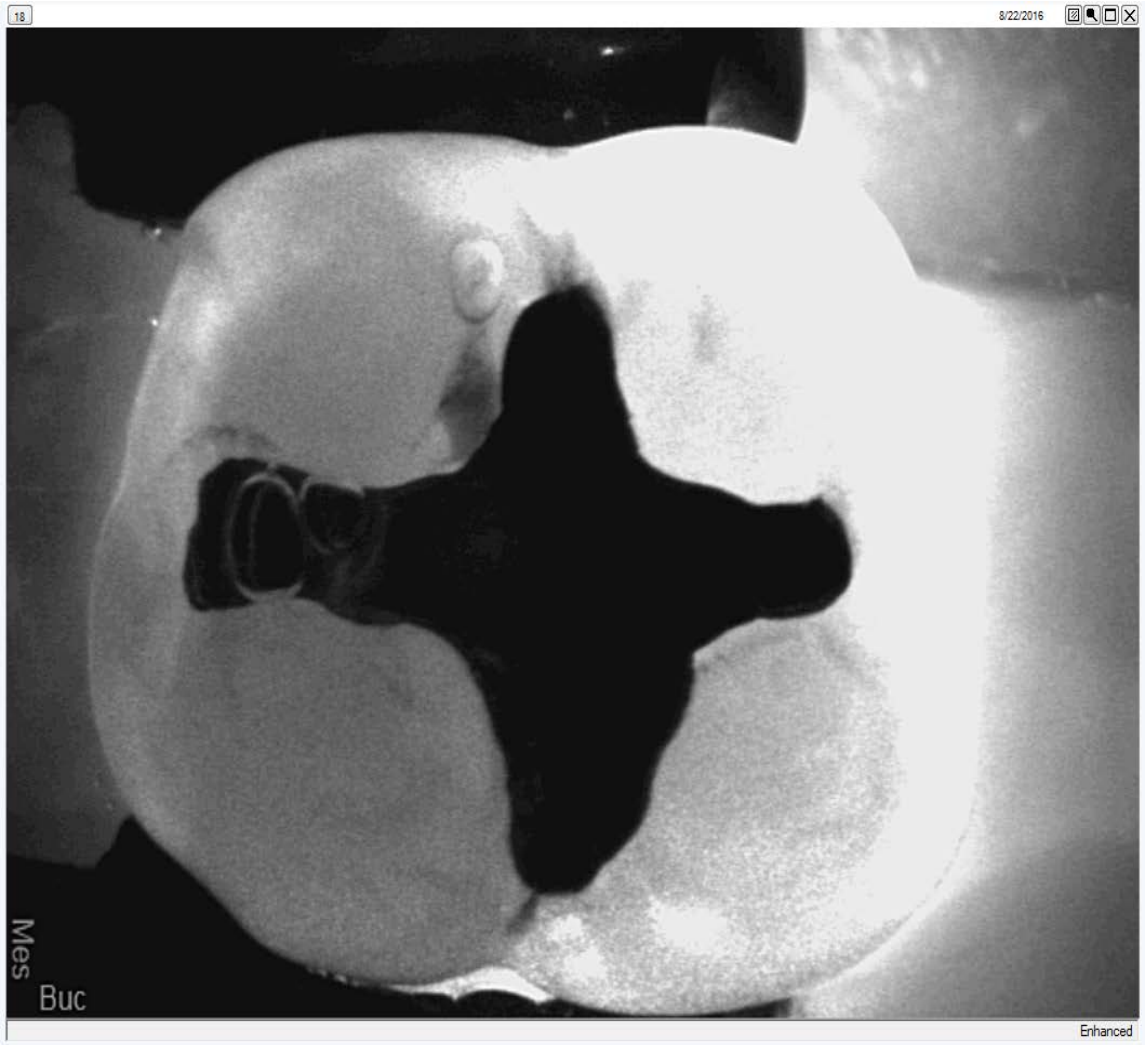
Recommended treatment:
Due to excellent oral hygiene this patient is reinforced to continue the same at home protocol and 6 mth appts.



Patient profile:(same patient) 16 years of age. No history of decay. OHI(floss daily, fl TP and 6mo recall with sealant).

Presents with: CariVu:14 reveals healthy tooth structure with an missing sealant. Sealant material placed 5 years ago. No apparent suspicious areas.

Recommended treatment:
Due to excellent oral hygiene this patient is reinforced to continue the same at home protocol and 6 mth appts. Possible new sealant is recommended.



Patient profile: 46 years of age female. Old fillings, history of grinding and clenching. Drinks occasional sodas. On meds that cause dry mouth.

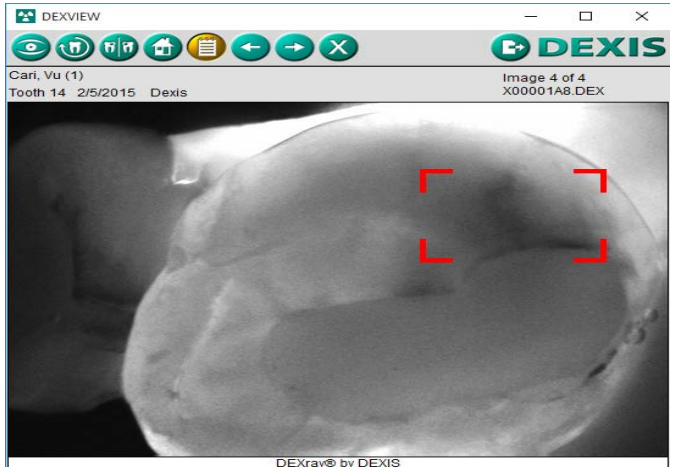
Presents with: CariVu: 19 old amalgam filling. Other new restorative re-done with composite. Observe small radiolucent area from open margin.

Recommended treatment: Possibly remove old amalgam and place composite, recommend night guard, fl application every recall visit. Home fluoride trays may be recommended for preventive care.

Patient profile: 46 years of age male. Old fillings, history of grinding and clenching. Drink occasional sodas. On meds that cause dry mouth.

Presents with: CariVu: 14 old amalgam filling. Other new restorative re-done with composite and one crown. Observe small radiolucent area from open margin.

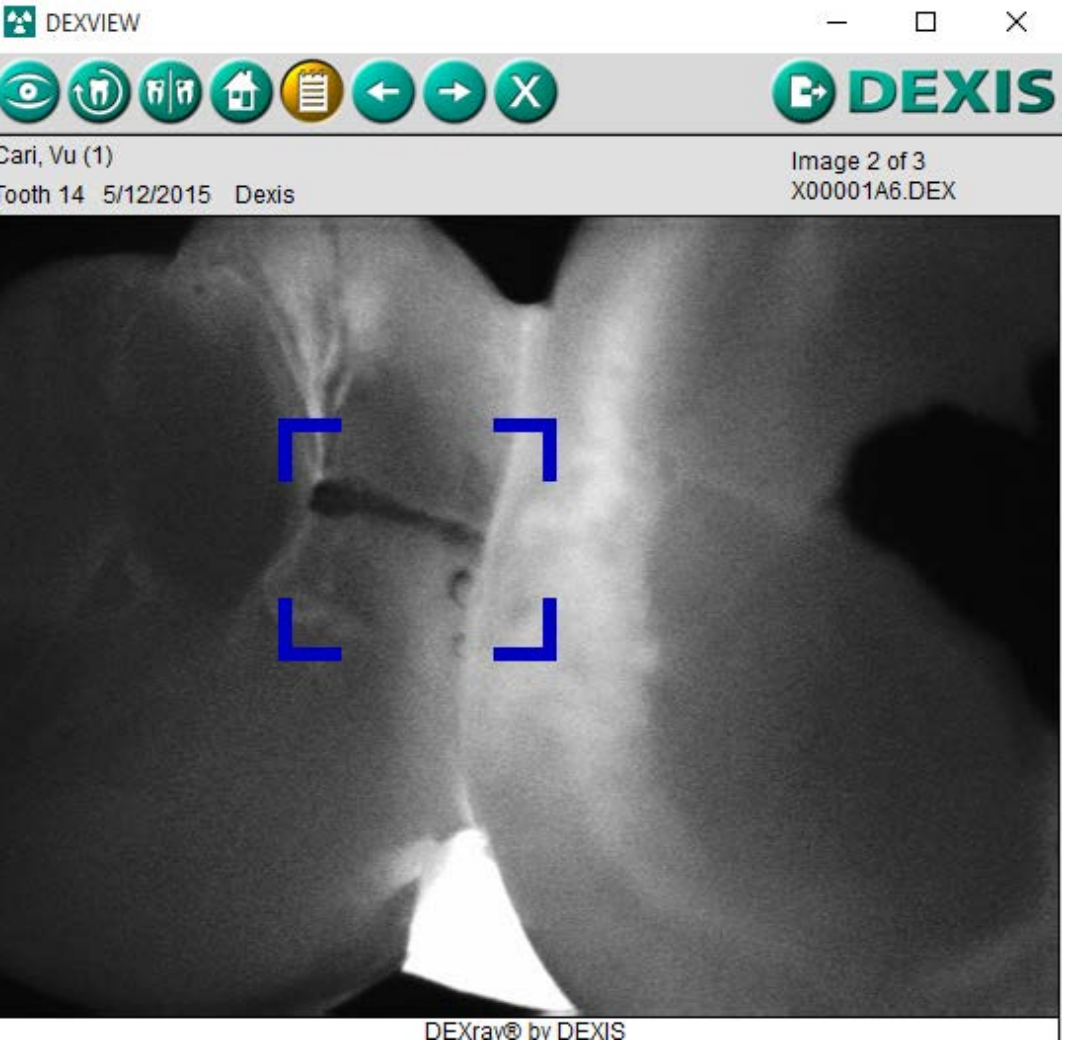
Recommended treatment: Possibly remove old amalgam and place composite, recommended night guard with fl application every recall visit. Home fluoride may be recommended for preventive care.



Patient profile: Dentist Jacksonville, FL.

Presents with: pain upper left quadrant area of # 14-15.
Radiographs: Inconclusive
CariVu: 14 reveals two large composite restorations with suspicious radiolucent areas. Also, multiple fractures are noted. #14 fracture deep as revealed by the discoloration on the distal.

Recommended treatment:
Due to the large fillings, evidence of multiple fractures, and symptoms - a crown on # 14 and #15. Also, with a history of decay, dental disease OHI should include Fluoride and recall every 3mths.

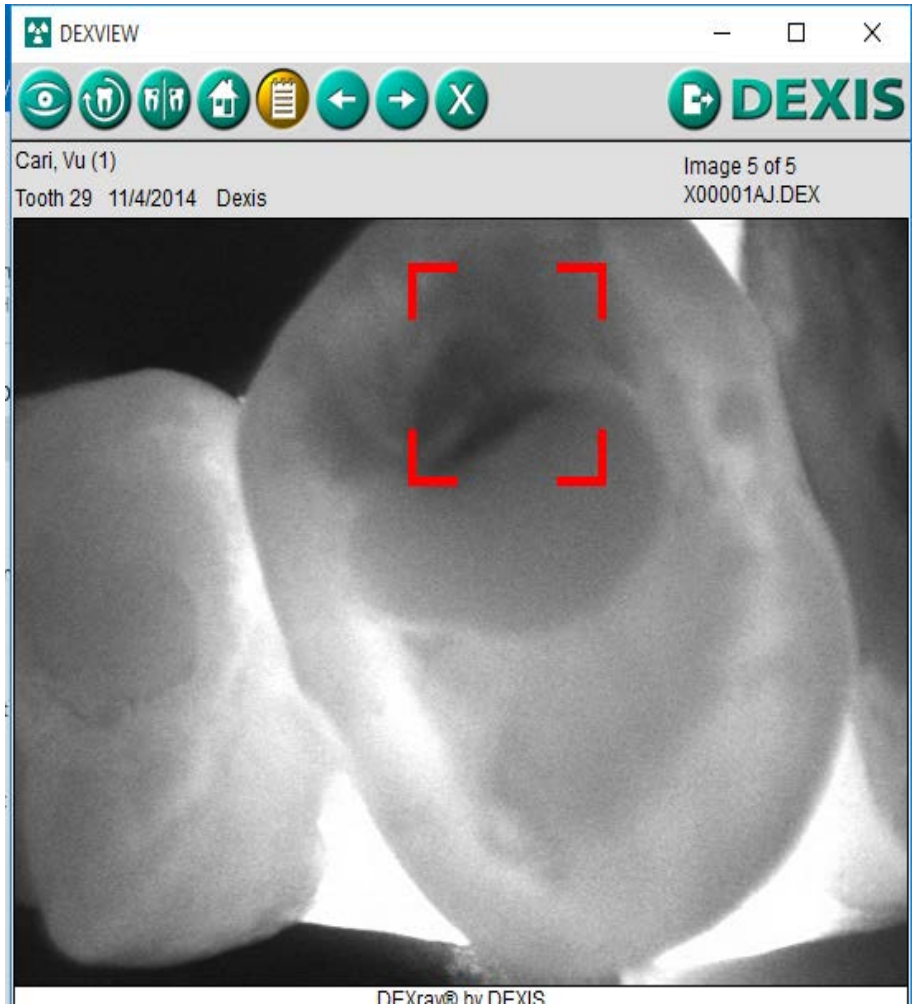


Patient profile: Henry Schein FSC

Presents with: pain upper left quadrant area of # 14.
Radiographs: Inconclusive

CariVu: #14 reveals a large fracture line on the distal. Fracture appears deep as is indicated in the dark radiolucent internal appearance. Also, the radiolucency is visible on both sides of the fracture.

Recommended treatment:
Due to the large fracture, and symptoms a crown on # 14 is recommended. Also, with a history of decay, dental disease. OHI should include Fluoride and recall every 3mths. Plus, this patient should be monitored for clenching or grinding due to evidence of additional fractures on #15 that is not yet radiolucent. Bite guard may be required.



Patient profile: pediatric dentist in Selma, AL.

Presents with: Patient reports pain on #29. Radiograph inconclusive and only showing large white composite restoration.

CariVu: #29 reveals a large open margin with a suspicious radiolucency that appears to travel internally on the lingual side.

Recommended treatment:

Due to the patient symptoms of #29 along with evidence supported by CariVu the next course of action is to open old restoration place a new composite or may need a crown upon further exploration.

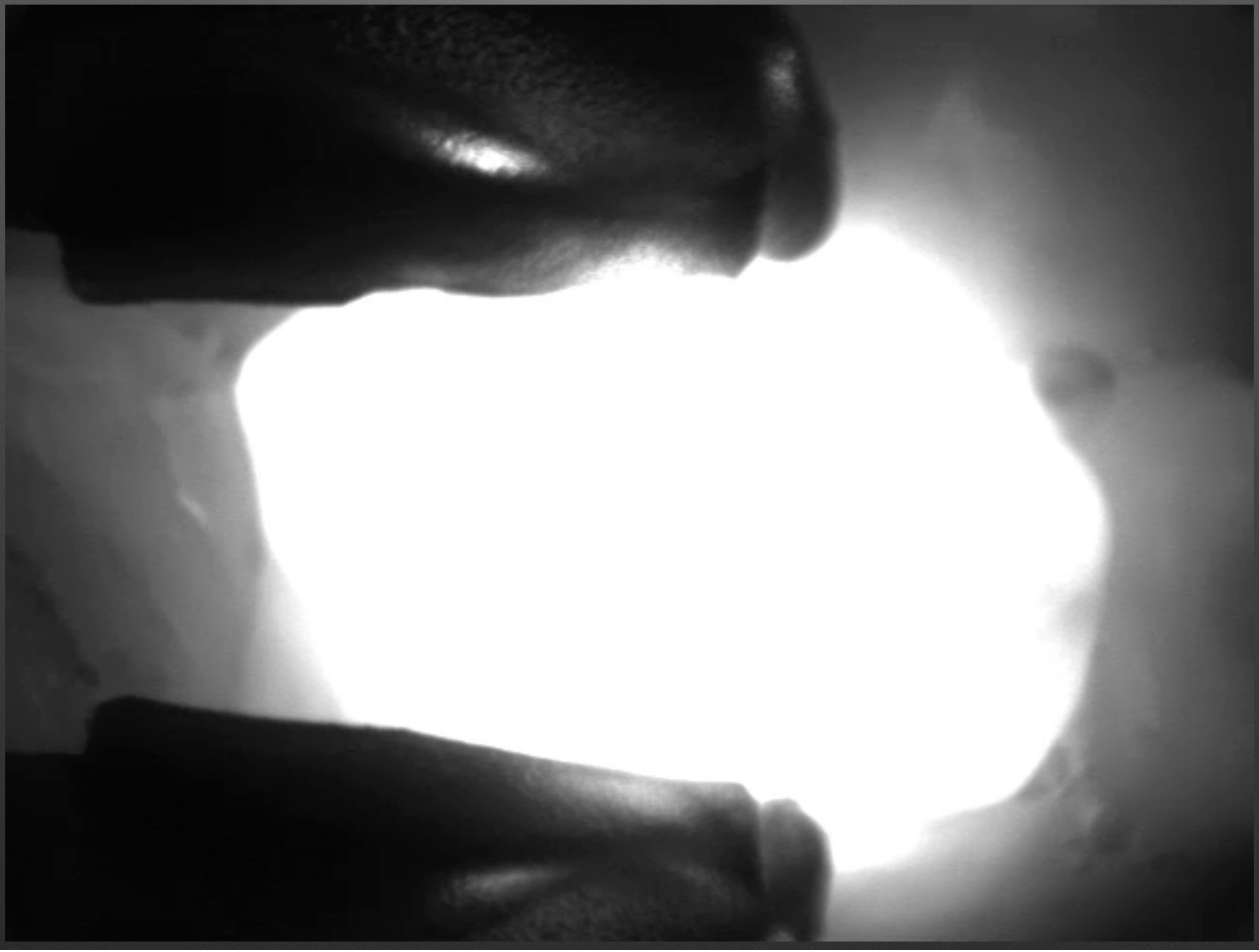
Patient profile: Unknown

Presents with: Patient reports pain to percussion in the area of #3. Radiograph is currently inconclusive.

CariVu: #3 revels a suspicious radiolucency under the current onlay restoration.

Recommended treatment:

Due to the patient symptoms of #3 and the findings from CariVu this patient is recommended remove existing restoration for further evaluation and possible evaluation from an endodontist.



Co-Diagnosis

THANK YOU!