

DIAGNOdent®pen - find hidden caries everywhere

DIAGNOdent® pen

The resolute caries detector



... Find hidden caries everywhere



Caries – not beaten yet

Safe and early caries detection
– the base for longlasting dental health

In 80 % of case children and young adults
do have fissure caries

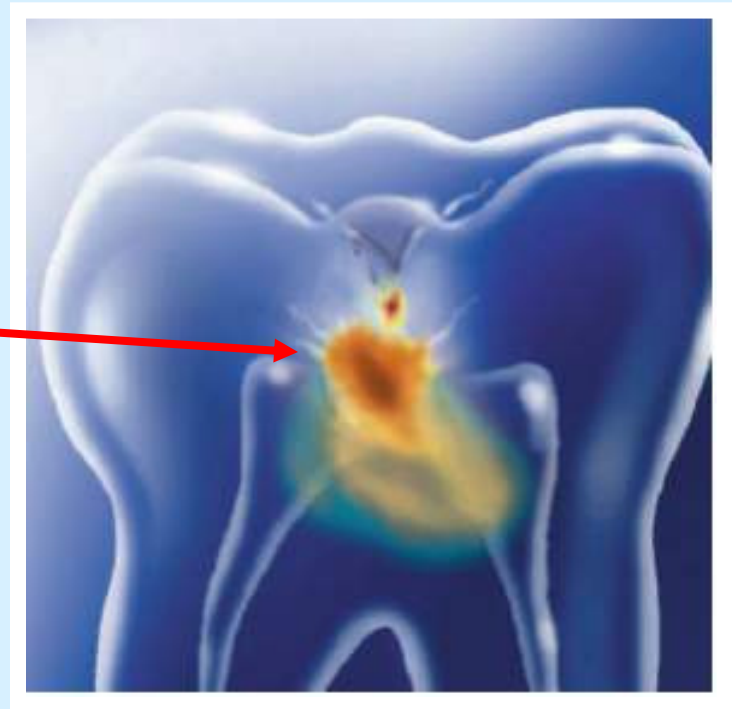
Especially critical hidden caries !!!

The iceberg syndrome

90 % of caries exist in hidden areas !!!

Fissure caries often develops underneath
healthy enamel

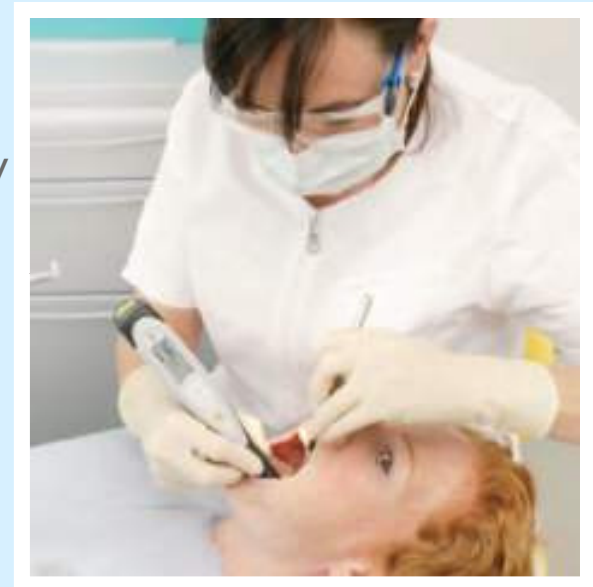
Caries in these hidden areas is very
often hard to detect



Safe caries detection with DIAGNOdent® pen

The new gold standard in fissure caries diagnosis

- Unbeatable sensitivity of von 90 %
- Scientifically recognised procedure
- Safe caries detection even with invisible lesions
- Detection and diagnosis in early stages – for minimally invasive therapies (which increases treatment comfort for the patient)
- Conventional methods are not reliable enough or predictable in combination (increased effort, possible damage of tooth tissue unnecessary X-ray exposure for the patient)
- Eliminates „classical probing“ therefore, no damage to healthy tooth substance



Safe caries detection with DIAGNOdent® pen

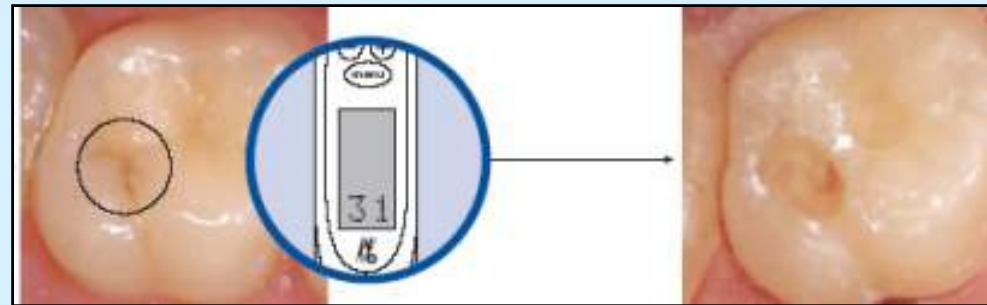
The new gold standard in fissure caries diagnosis



No caries lesion visible with X-ray



Visually, only a light discolouration is visible.



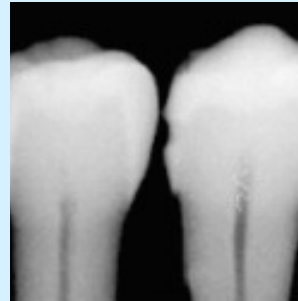
But DIAGNOdentpen finds caries, which now can be treated minimally invasive



Optimal in approximately: DIAGNOdent® pen

Dependable caries depth diagnosis without X-ray

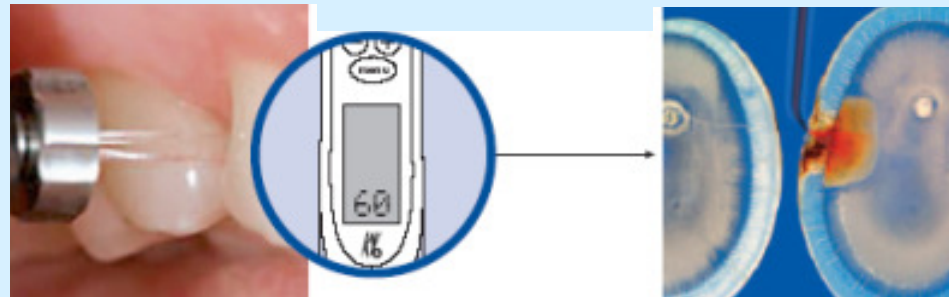
Increased risk of caries in the approximal areas, especially with adults



Current standard is (was) the x-ray provided diagnosis
Result here: C2/C3



Visual diagnosis or diagnosis by using a probe is difficult
Result here: C2

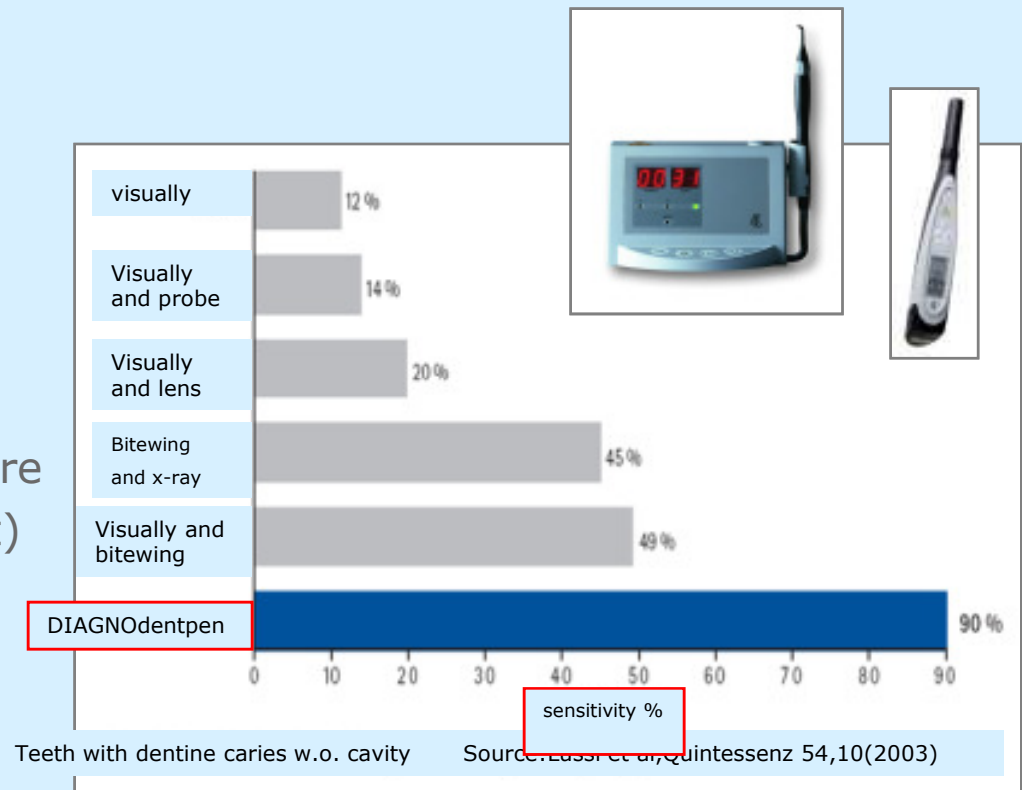


Histological sectioning supports and prove the DIAGNOdentpen results: deep dentine caries (C4)

The verification: DIAGNOdent® detects 90%

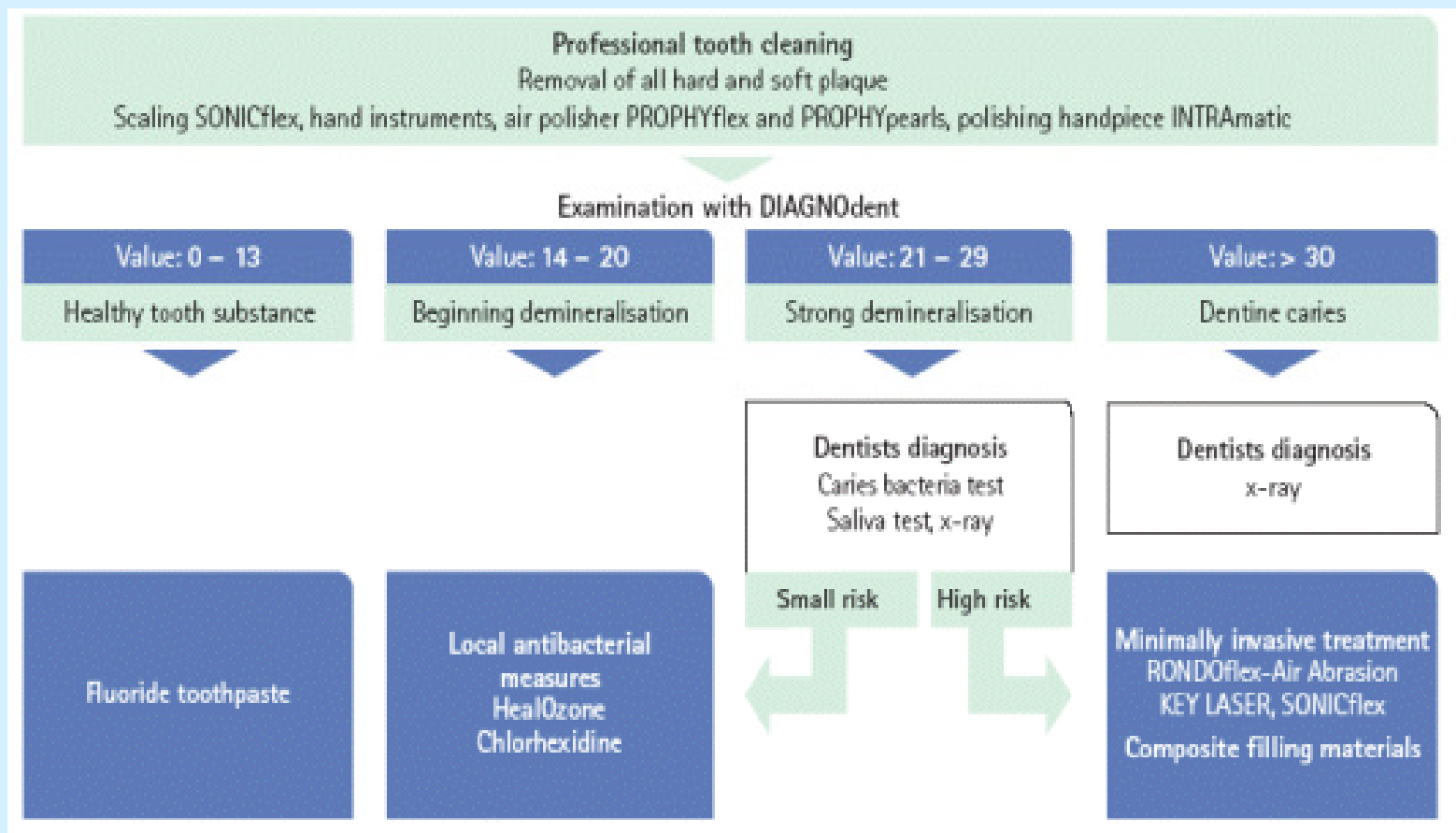
Reproducible, diagnostic quality with laser fluorescence, procedure scientifically proven

- values for DIAGNOdent and DIAGNOdent pen on equal level > results of scientific studies are transferrable
- Same high detection level on fissure caries (gold standard: DIAGNOdent)



DIAGNOdent®pen

clinical indication



Diagnostic performance, immediately turns to account

DIAGNOdent® pen – a pen ,easy to calculate with

- Fast amortisation through extensive caries prevention offers:

With calculated 5 € per patient for use of DIAGNOdent, the return of investment is reached in between 75 days (calculated 8 chargeable uses/per day)
Potential for enhanced treatment with extensive service and chargeable follow-up treatments

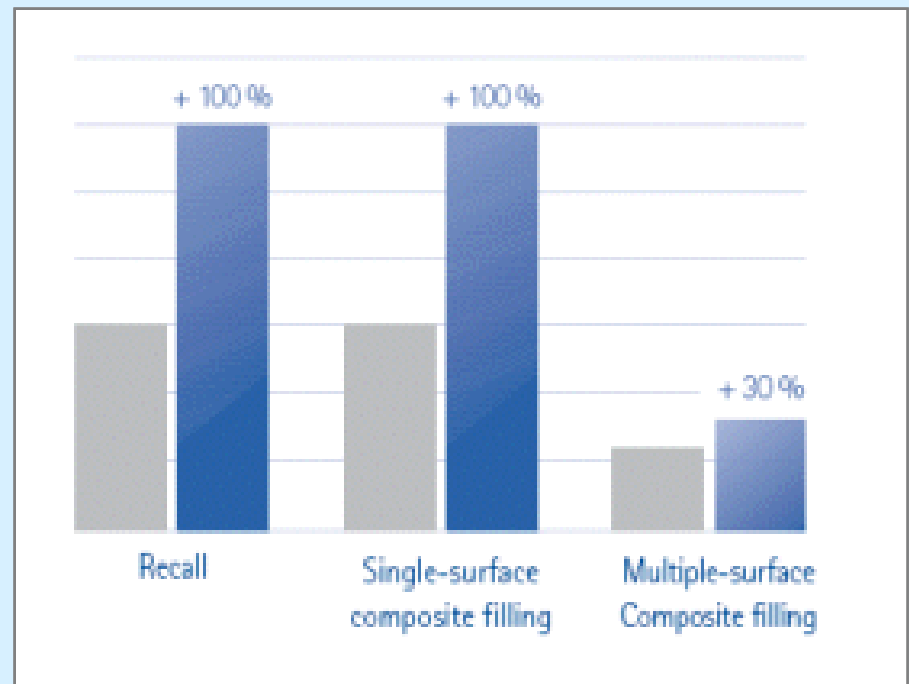
- Improved practice efficiency
- Increased patient satisfaction and bonding
- Changing in practice protocols: check-up by DH,
Focussing of „high value“ treatment done by dentist



Concrete numbersincreasing the practice potential Swap your red pen for the DIAGNOdent® pen !

In the ideal case, increasing of the practice turnover up to more than 20 % through:

- 100 % increase in recall patients
- 100 % increase in single-surface composite fillings
- 30 % increase in multiple-surface composite fillings
- 20 % increase in higher value treatments



Satisfied patients: your most important asset

Trust is good: Proven trust is better

Patients and practice profit in turn



- Safe prophylaxis and treatment plan ✓
- Painless diagnosis ✓
- Protection of healthy tooth substance ✓
- Lifelong preservation of the natural tooth substance ✓
- Less x-ray exposure ✓
- Less anaesthetics (needle phobic patients) ✓
- Visit the dentist without nervous stress or painful anxiety ✓

Exact caries LASER detection

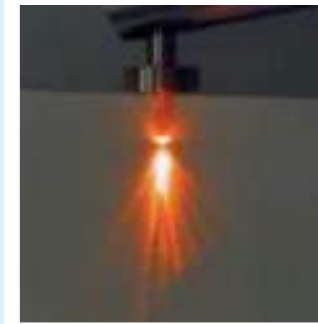
Resolute diagnosis with fluorescent LASER technology

The laser probe at the DDpen-tip makes the scanned tooth tissue fluoresce. DDpen identifies caries by deviation in fluorescence of the infected tooth substance (audible signal and digital value)

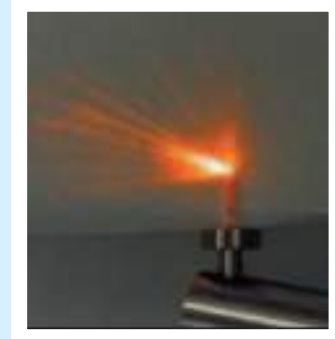
Two solid sapphire probes

Occlusal probe sends the laser straight through

Approximal probe sends the laser with a deflection of 100°.The direction is visible marked with a coloured dot



Occlusal probe



Approx-probe

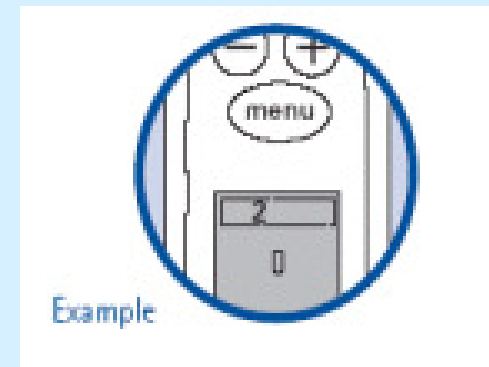
Suitable handling in practice

Easy handling and unproblematic use

Storage for up to 4 probes

e.g

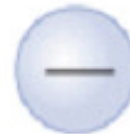
- 1 = occlusal probe
- 2 = approx- probe
- 3 = free space for another probe
- 4 = free space for another probe



Changing the storage position



Press twice



Choose storage position 1 - 4

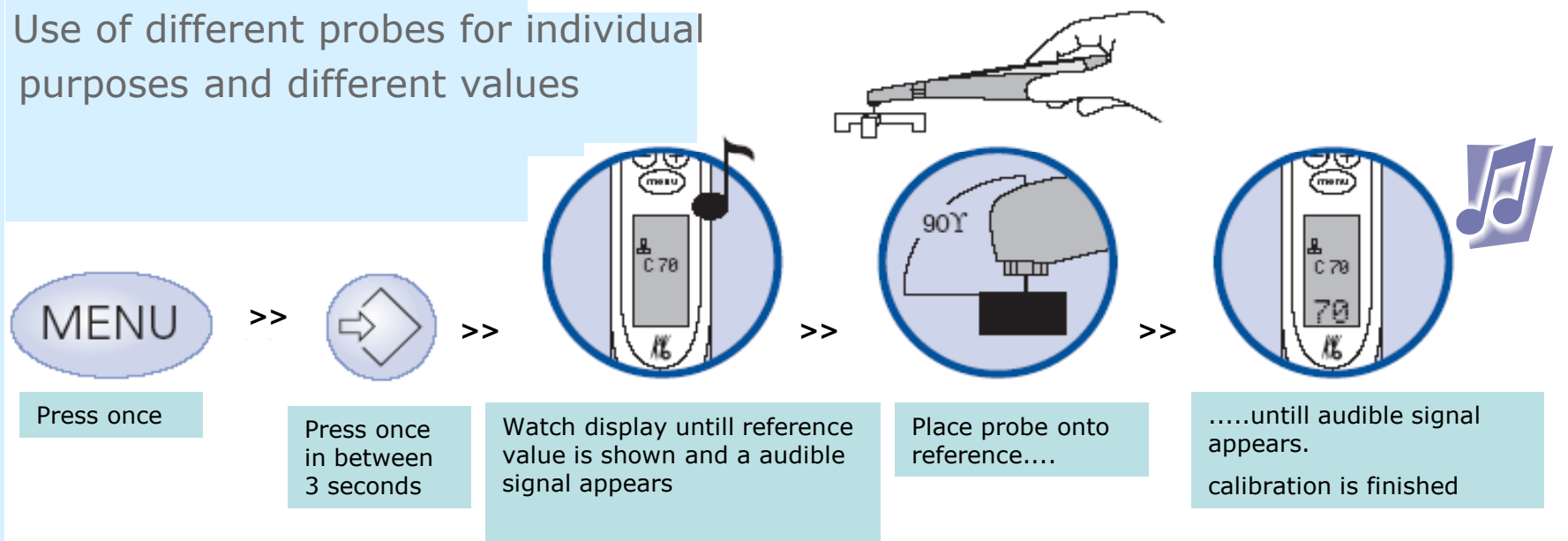
Press once (confirm)

Reference calibration in just seconds

For precision without compromise

Calibration enables:

- Monitoring of DIAGNOdent values over long time periods
- Comparison of values with different DIAGNOdent units
- Use of different probes for individual purposes and different values



Patient individual precision

Consideration of the patient-specific-fluorescence values and tooth colouration

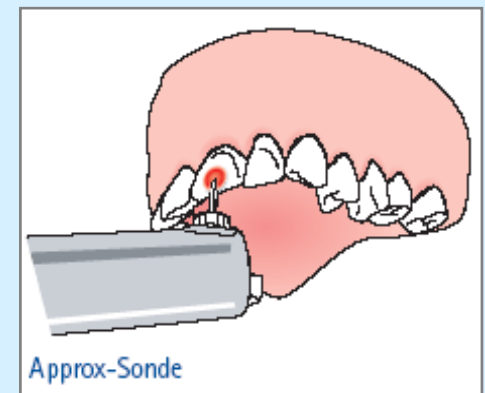
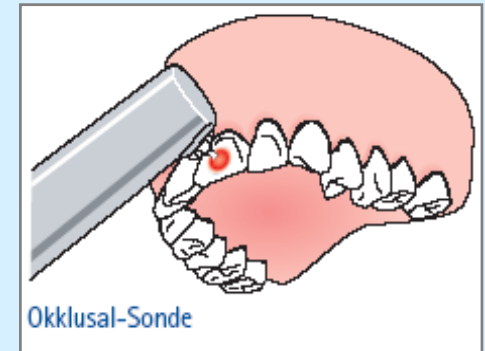
Patient-specific values are normally between +1 and + 5

The „zero“ value therefore may be adjusted for each patient individually

On „zero“ in 3 seconds:

- choose caries-free spot (e.g incisor)
- Place probe onto spot
- press switch for 3 seconds
- Confirmation by double acoustic signal: “zero“value stored specially for this tooth/patient until value is increased and overwritten through a new higher value

Control advice:Once “zero“ value is set,DIAGNOdent pen shows a negative value when directed in the air

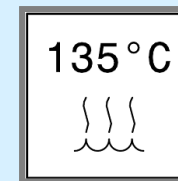


Clean business

Easy handling even for cleaning

Hygiene

- Sleeve and probes can be sterilized at 135 °
- Surface disinfection (e.g. KaVo ELASTOclean 2) possible to use for the remainder instrument



Clinical case report

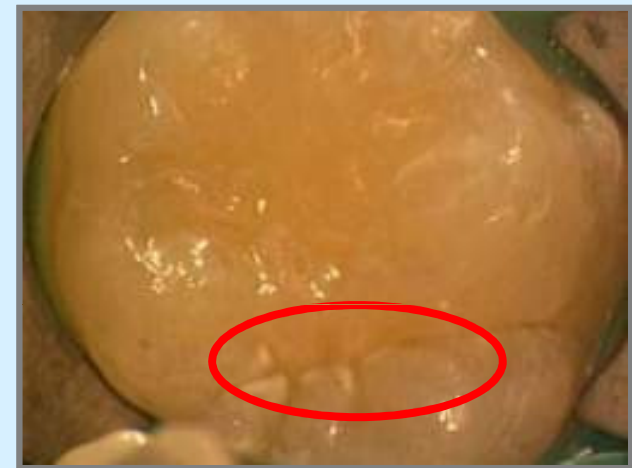
Fissure caries



- Dres. V. & R. Kalla, Basel www.kalla.ch
- **EiD: Excellence in Dentistry**
Private dentale research institue

DIAGNOdent®pen - find hidden caries everywhere

- Patient:
 - Age: 37
 - Gender: female
 - DIAGNOdent-values:
 - 2002: 17: **14**
 - 2003: 17: **28**
 - 2004: 17: **36**
 - Other risk factors: none
 - Diagnosis: Fissure Caries on 17



case report: Fissure Caries

**Initial
situation
tooth 17**



case report: Fissure Caries

**Careful cleaning of
the treated tooth
with PROPHYflex**



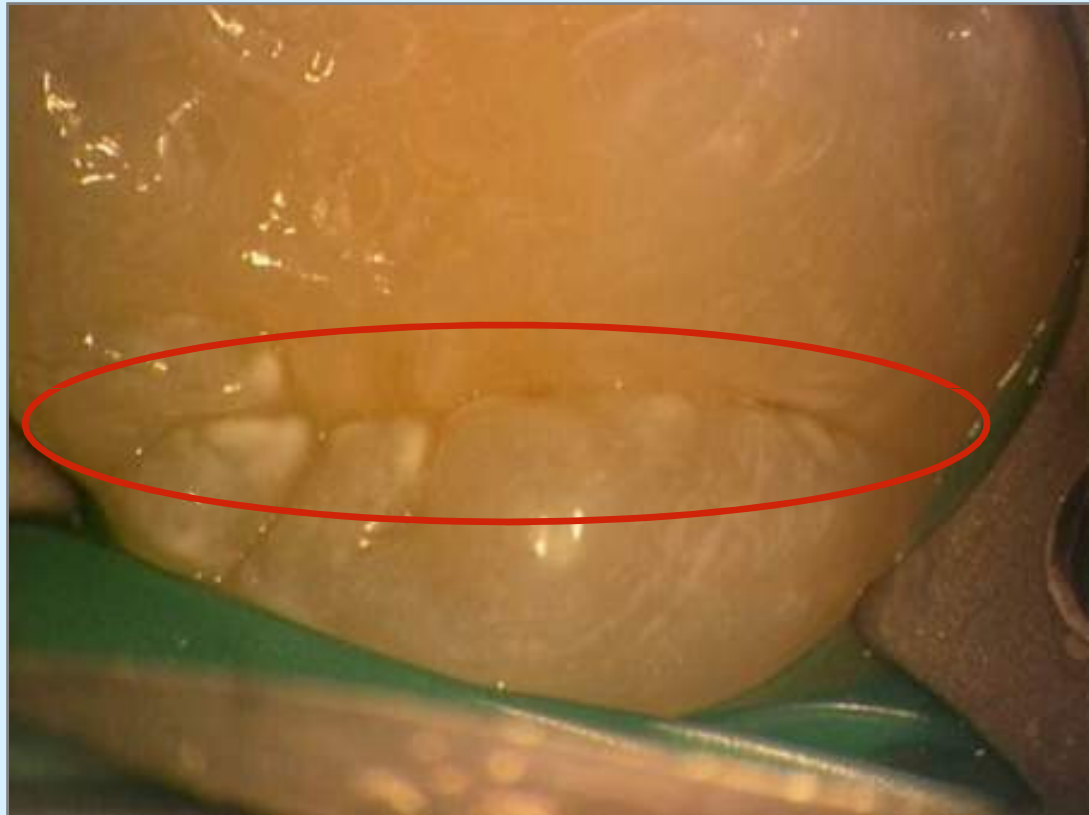
case report: Fissure Caries

**DIAGNOdent-
Value:**

Tooth 17

Maximum value

- 2002: **14**
- 2003: **28**
- 2004: **36**



case report: Fissure Caries

RONDOflex AirAbrasion:

- **Perpendicular
to tooth surface**
- **Short distance
app. 1 mm**
- **Work with
amplification,
i.e. loop,
microscope**



case report: Fissure Caries

RONDOflex:

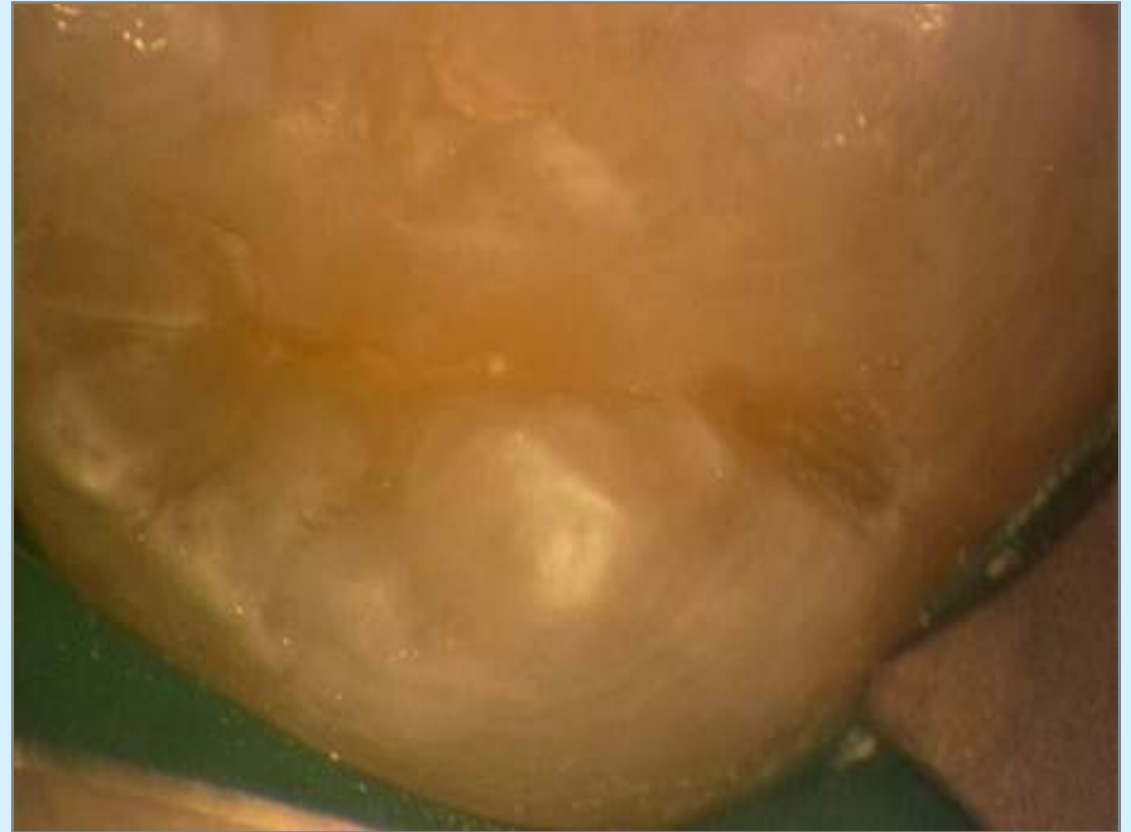
- **Open fissure carefully**
- **Remove visible and stained caries lesions**
- **Maintain sound tooth structures**



case report: Fissure Caries

RONDOflex:

➤ **Detail screen**



case report: Fissure Caries

HealOzone:

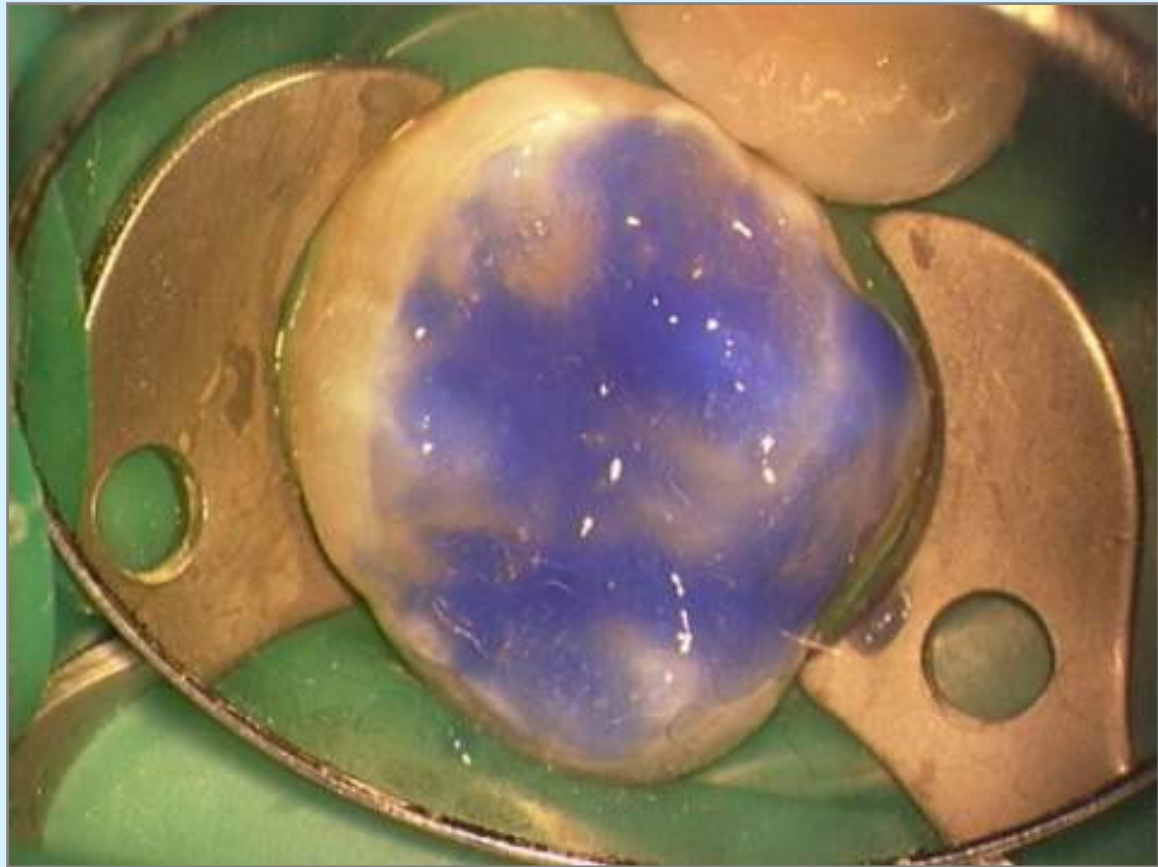
- **Disinfection of the affected tooth surface and dentin tubuli with ozone**
- **99,9% of the caries bacteria are eliminated**



case report: Fissure Caries

Etching:

- **60 seconds with 37% phosphoric acid**



case report: Fissure Caries

FINEair:

- **Drying of fissure and tooth surface**
 - **Don't over dry – easy to control by foot**
 - **No contamination with water possible**
- ⇒ **perfect bonding**



case report: Fissure Caries

FINEair:

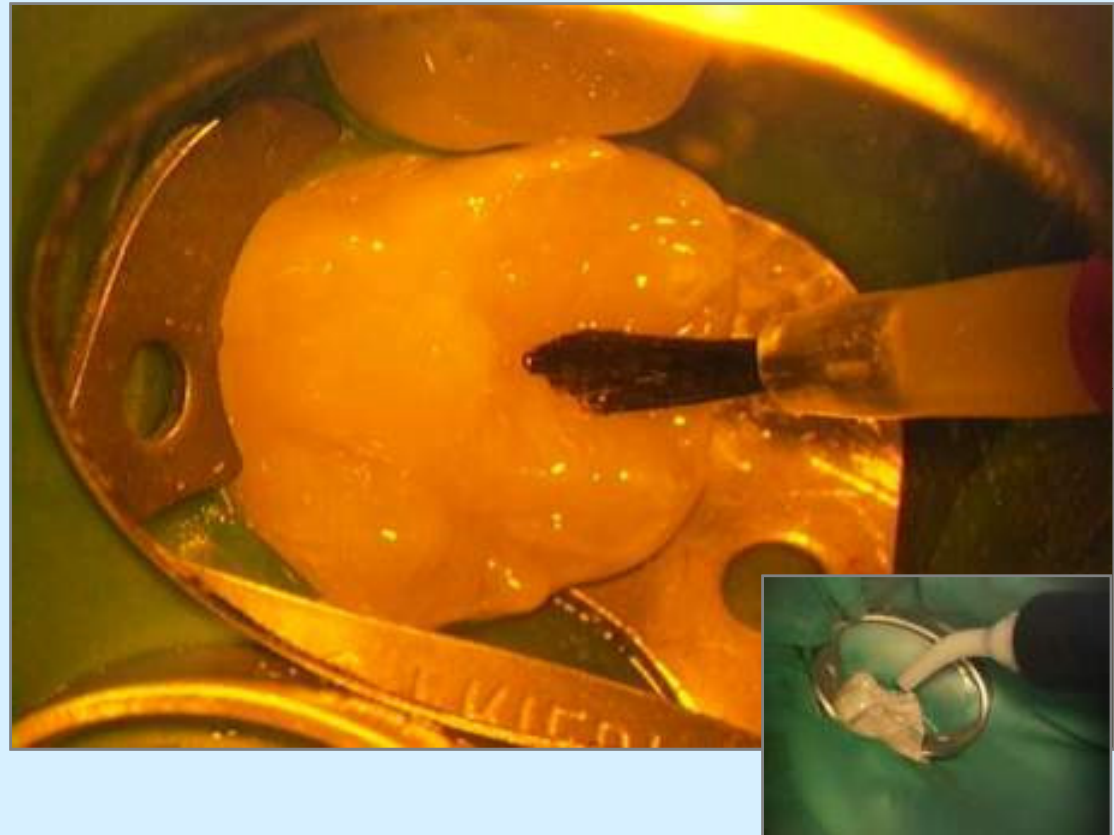
- **Application of the different components of the bonding system**
- **Even application with FINEair**
- **Attention: Don't dry to much**



case report: Fissure Caries

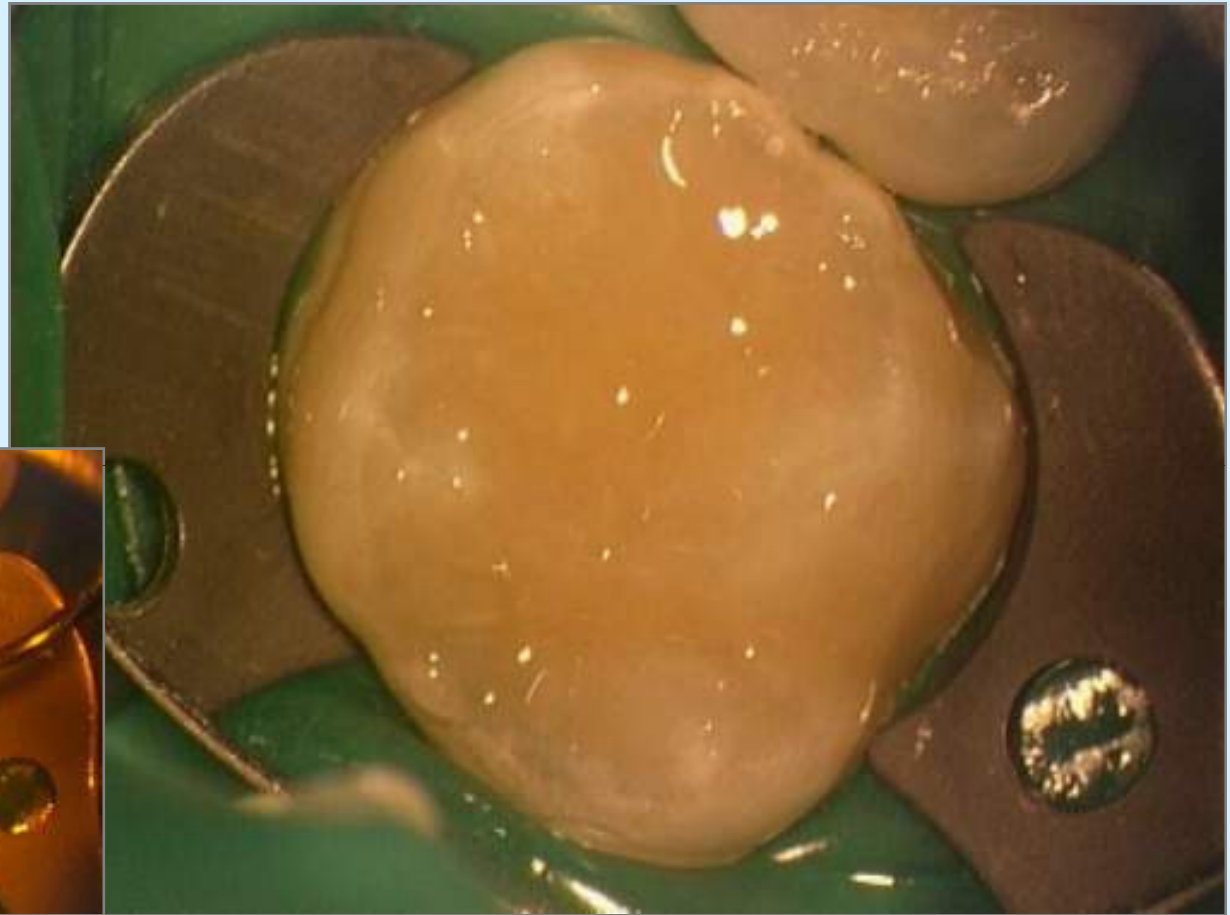
FINEair:

- **Application of the Liner**
- **Even distribution with FINEair**
- **Light polymerisation**
- ⇒ **Perfect bonding**



case report: Fissure Caries

**Composite
filling
completed**



case report: Fissure Caries

Fluoridation



case report: Fissure Caries

- **Total treatment time:** app.30 minutes
- **Anaesthesia:**
normally not necessary. Even if deeper dentin areas are affected anaesthesia is not necessary
- **Cost for the patient:**
Like a conventional 1-surface composite filling.
Surcharge for the HealOzone application of 30,-- € per tooth,

