

KaVo DIAGNOcam

# Clinical Cases of DIAGNOcam.

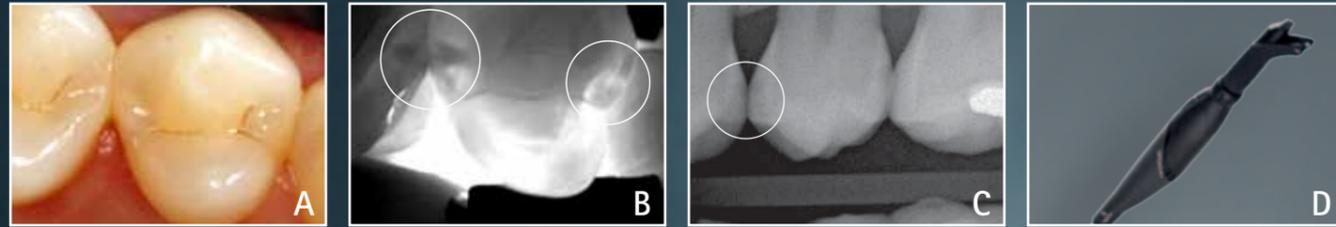
(created by the Ludwig-Maximilian University  
Munich, Department of Conservative Dentistry, 2012)



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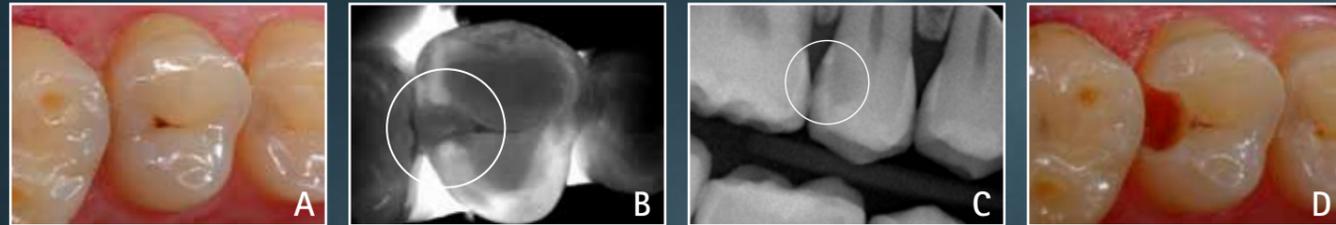
Initial diagnosis      DIAGNOcam      X-ray      Therapy

**Diagnosis of interproximal caries in a permanent premolar**



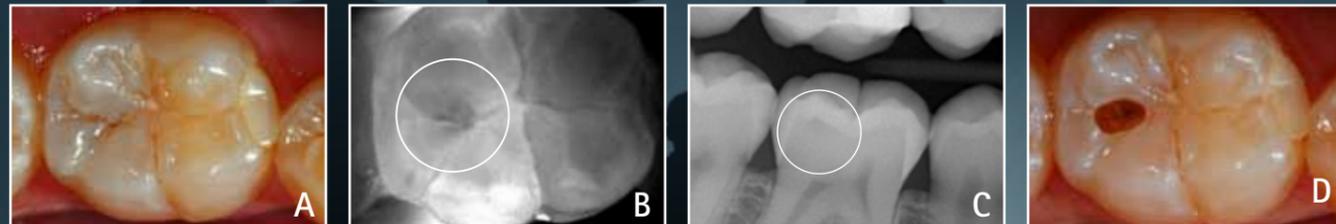
**A)** The clinical situation indicates a caries-free premolar. When the DIAGNOcam procedure is used caries can be diagnosed both on the mesial and the distal surface **(B)**; in neither case is the dentine-enamel junction implicated. Although the corresponding bitewing X-ray image cannot be evaluated due to the projection conditions, the image of the distal surface points to enamel caries **(C)**. The further procedure is to include preventative support of caries monitoring, which is eminently possible with the DIAGNOcam procedure **(D)**. In addition, the indication for caries infiltration can be identified.

**Diagnosis of interproximal caries in a permanent premolar**



**A)** Apart from occlusal browning, a clinical investigation of premolar 15 does not identify any other signs of carious processes. In contrast, the DIAGNOcam image **(B)** points out extensive distal shadowing, which has already extended to the dentine-enamel junction. The associated bitewing X-ray picture **(C)** points to a carious process reaching into the inner half of the dentine. After exposure of the carious process in the context of filling therapy **(D)** the extent of the lesion correlates with the DIAGNOcam image (enamel caries) and the bitewing X-ray picture (dentine caries).

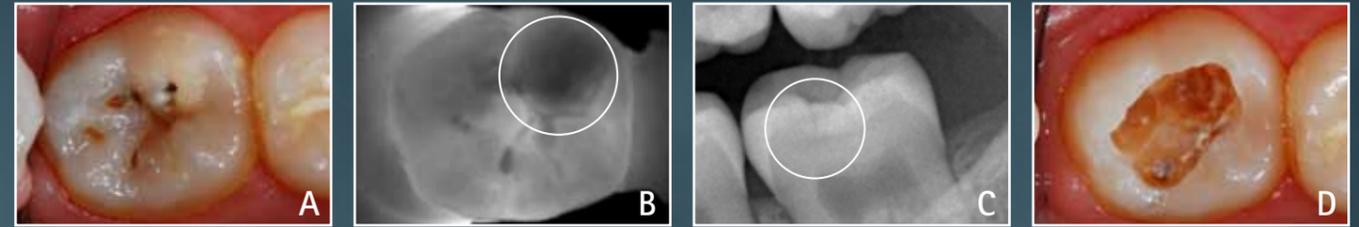
**Occlusal diagnosis in a permanent molar (hidden caries)**



**A)** A visual investigation of the occlusal surface of tooth 46 does not provide any definite proof of a carious discoloration etc. In the DIAGNOcam image **(B)** a shadow can be identified in the central fissure area **(C)** which also shows up clearly in the X-ray image as a light patch. When the carious process is opened up **(D)** carious dentine can be seen.

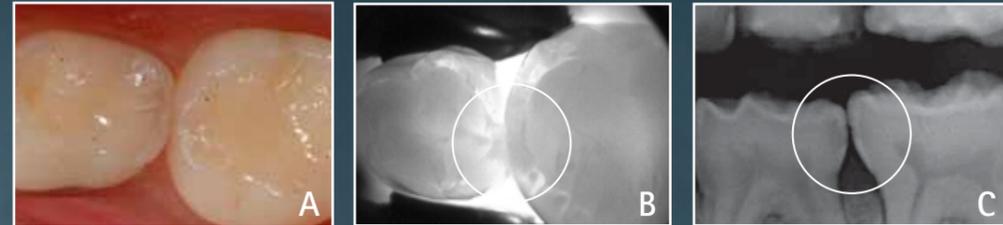
Initial diagnosis      DIAGNOcam      X-ray      Therapy

**Occlusal diagnosis in a permanent molar (hidden caries)**



**A)** Tooth 37 shows an established occlusal carious lesion with several localized enamel breaches. Demineralization is apparent around the mesiobuccal cusp, which stands out in the DIAGNOcam image **(B)** as a dark shadow. **(C)** The corresponding X-ray image shows up an advanced dentine lesion. **(D)** When the carious process is opened up, the active lesion character and the undermining expansion of the caries can be seen.

**Diagnosis of interproximal caries in two primary molars**



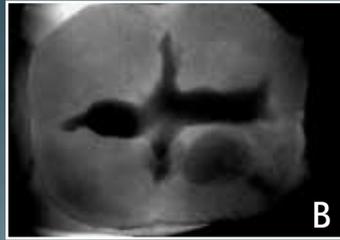
**A)** A clinical examination of the proximal space between 74 and 75 only provides evidence of a carious process on the distal side of 74. In the DIAGNOcam image **(B)** shadowing can be seen involving the dentine-enamel junction both mesially on 75 and distally on 74. Due to the very thin enamel layer and the restricted transillumination due to reabsorption processes can hinder diagnosis of milk teeth. In the X-ray image **(C)** a carious process involving the dentine on both teeth can be identified.

## KaVo DIAGNOcam – other findings

*Initial diagnosis*

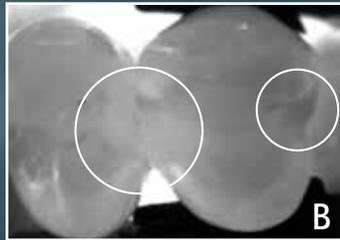
*DIAGNOcam*

### Fissure sealing and composite filling in a permanent molar



**A)** Extensive fissure sealing can be seen on 36, which in the DIAGNOcam image **(B)** appears as clearly defined, opaque shadowing. In addition a composite filling on the mesio-lingual cusp shows up **(A)**, which also clearly shows up in the DIAGNOcam image **(B)** as a well defined shadow.

### Ceramic inlays



**A)** A ceramic inlay has been installed distally on 14 while 15 has a mesial ceramic inlay. On the DIAGNOcam image **(B)** the fillings are clearly defined against the enamel as opaque, well delineated areas, whereby the transillumination effects are significantly reduced. In addition, an initial mesial lesion can be clearly seen on 14.

Other clinical examples with DIAGNOcam can be found at [www.KaVo.de/diagnocam](http://www.KaVo.de/diagnocam)



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