# Article information:

Digital dentistry: an overview of recent developments for CAD/CAM generated restorations | British Dental Journal
<https://www.nature.com/articles/sj.bdj.2008.350>

# Article summary:

1. CAD/CAM systems in dentistry consist of a digitalization tool/scanner, software for data processing, and a production technology for fabricating restorations.

2. There are three different production concepts for CAD/CAM in dentistry: chairside production, laboratory production, and centralized production.

3. CAD/CAM components include scanners (optical or mechanical), design software for creating restorations, and processing devices (3-axis, 4-axis, or 5-axis milling devices).

# Article rating:

Appears moderately imbalanced: The article provides some useful information, but is missing several important points or pieces of evidence that would be required to present the discussed topics in a balanced and reliable way. You are encouraged to seek a more balanced perspective on the presented issues by exploring the provided research topics and looking at different information sources.

# Article analysis:

The article provides an overview of recent developments in digital dentistry for CAD/CAM generated restorations. While it offers valuable information on the different production concepts and components of CAD/CAM systems, there are several potential biases and missing points of consideration that need to be addressed.

Firstly, the article presents CAD/CAM as a synonym for prostheses produced by milling technology, which is not entirely accurate. CAD refers to computer-aided design, while CAM stands for computer-aided manufacturing. The article fails to mention other methods of fabrication that can be used in CAD/CAM systems, such as 3D printing.

The article also focuses primarily on the benefits and success rates of CAD/CAM systems without adequately addressing potential risks or limitations. While it mentions clinical observations and success rates for CAD/CAM produced inlays, it does not provide any evidence or references to support these claims. Additionally, it does not explore any potential drawbacks or complications associated with CAD/CAM restorations.

Furthermore, the article only mentions one specific CAD/CAM system (Cerec® System) that offers chairside production, without discussing other available options or their advantages/disadvantages. This lack of comprehensive coverage suggests a potential bias towards promoting this particular system.

The article also fails to address the cost implications of implementing CAD/CAM systems in dental practices. It briefly mentions the small investment requirement for outsourcing CAM production but does not provide any further details or considerations regarding the overall costs involved.

Additionally, the article does not present both sides equally when discussing the different production concepts. It provides more detailed information on chairside production and laboratory production but only briefly mentions centralised production without delving into its benefits or drawbacks.

Overall, while the article provides some useful information on digital dentistry and CAD/CAM systems, it lacks depth and balance in its coverage. It would benefit from addressing potential biases, providing more evidence for its claims, exploring counterarguments, and presenting a more comprehensive analysis of the topic.

# Topics for further research:

* Limitations and complications of CAD/CAM restorations in dentistry
* Comparison of different CAD/CAM systems for dental prostheses
* Cost analysis of implementing CAD/CAM systems in dental practices
* Benefits and drawbacks of chairside production in CAD/CAM dentistry
* Alternative fabrication methods in CAD/CAM systems
* such as 3D printing
* Evidence-based success rates of CAD/CAM restorations in dental practice

# Report location:

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