



Guideline 2023

Short, angulated and reduced-diameter implants

2nd Update

18th European Consensus Conference (EuCC)
2023



2023

**European Association of
Dental Implantologists (BDIZ EDI)**

Lipowskystr. 12 · 81373 Munich
Tel. +49 89 720 69 888 · Fax +49 89 720 69 889
office@bdizedi.org
www.bdizedi.org





CONTENT

1	Methods	page 4
2	Problem	page 5
3	Use of short implants	page 5
4	Use of angulated implants	page 7
5	Use of reduced-diameter implants	page 8
6	Recommendations	page 9
7	References	page 10

Guideline 2023

Short, angulated and reduced-diameter implants, 2nd Update

18th European Consensus Conference (EuCC) 2023

6th February 2023

Authors: Jörg Neugebauer, PhD, DMD
Joachim E. Zöller, PhD, MD, DMD
Department of Craniomaxillofacial and Plastic Surgery
and Interdisciplinary Department for Oral Surgery and Implantology
Centre for Dentistry and Oral and Maxillofacial Surgery,
University of Cologne, Germany

Host: Professor J. Neugebauer (Germany)
Protocol: Professor J. Neugebauer (Germany)

Participants: Professor B. Al-Nawas (Germany)
C. Berger (Germany)
Dr E. O'Connell (United Kingdom)
Professor A. Felino (Portugal)
Dr I. Frank (Germany)
Professor F. Heinemann (Germany)
Dr F. Kasapi (Macedonia)
Dr K. Krasny (Poland)
Professor V. Konstantinović (Serbia)
Dr S. Liepe (Germany)
Dr A. Manolakis (Greece)
Professor J. Neugebauer (Germany)
Dr W. Neumann (Germany)
Professor H. Özyuvacı (Turkey)
Dr B. Singh (Nepal)
W. Tomkiewicz (Poland)
Dr J. W. Vaartjes (The Netherlands)
Professor J. E. Zöller (Germany)



1. METHODS

1.1 Objective

The purpose of this guideline is to provide clinicians involved in implant dentistry with recommendations to enable them to correctly assess the potential indications (and any limitations) for short, angulated or reduced-diameter implants. This guideline reflects data from controlled clinical trials and takes into account clinical data from routine treatment in the private-practice setting.

1.2 Introduction

This consensus paper is concerned only with titanium implants, typically placed according to the indications recommended by the European Consensus Conference Implantology (EuCC, Germany, 6 February 2023).

All consensus recommendations in this paper should be considered as guidelines only. The specific situation of the patient is always an important consideration and may justify a deviation from the recommendations of this consensus paper.

1.3 Background

Avoiding bone augmentation with reduced-dimension implants and making optimal use of the available bone volume are often recommended as minimally invasive treatment options [50]. In addition to the number of implants, dimension and insertion type must be considered to ensure an acceptable treatment outcome.

1.4 Literature search

The Cochrane Library, EMBASE, DIMDI and Medline literature databases were used to conduct a systematic search for recently published data on the use of short, angled and reduced-diameter implants. Selective search criteria were used, including terms such as short implants, angulated implants, angled implants, tilted implants and implant failure, narrow and reduced diameter. The publications identified by the search were screened by reading their abstracts, and those irrelevant to the topic were identified and excluded. Those articles identified as potentially relevant were obtained in full text. Several meta-analysis reviews and randomized controlled trials (RCTs) and other prospective or retrospective systematic clinical trials were available on the topic.

1.5 Development of this guideline/consensus paper

A preliminary version, on which the EuCC based its deliberations, was prepared and reviewed by Professor J. Neugebauer of the Interdisciplinary Polyclinic for Oral Surgery and Implantology and the Department of Oral and Maxillofacial Plastic Surgery at the University of Cologne, Germany. The preliminary report was then reviewed and discussed by the members of the committee in the following five steps:

- Review of the preliminary draft
- Collecting alternative suggestions
- Voting on recommendations and levels of recommendation
- Discussion of non-consensual issues
- Final vote