

The effect of implant collar design and developments over the years on soft tissue and bone level - a systematic review

Klenise Paranhos

New York University College of Dentistry, USA

Purpose: This systematic review compares the effect of rough-surfaced and machined implant necks on marginal bone loss in adult patients.

Materials and Methods: An online search was assembled with a combination of Medical Subject Headings (MeSH terms) and free-text words of the literature published up to February of 2016, to identify studies that compared modifications in the implant neck area and measured marginal alterations.

Results: The primary search yielded 1,110 significant titles. After filtering, data extraction and quality assessment, eighteen full text studies were selected and divided according to the follow-up at one year, three years and five or more years.

Conclusion: In short-term cases, defined as ≤ 1 year follow-up, rough neck implant surfaces showed better marginal bone preservation than smooth neck implant surfaces. However, there was no difference between implant designs in longer-term studies, defined as ≥ 3 years follow-up. These data do not suggest a long-term advantage to the use of either implant design.