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The effectiveness of pre- and postoperative dietary interventions to prevent weight loss after orthognathic surgery

a randomized controlled trail

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Publication date:
2021

Document Version
Publisher's PDF, also known as Version of record

[Link to publication from Aalborg University](#)

Citation for published version (APA):

Mogensen, T. M., Boll, B., & Pedersen, P. U. (2021). *The effectiveness of pre- and postoperative dietary interventions to prevent weight loss after orthognathic surgery: a randomized controlled trail*. Poster presented at Nordic Conference in Nursing Research 2021, Copenhagen, Denmark.

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Background

Patients who undergo orthognathic surgery (jaw surgery) are mostly young people. Results from international studies indicate that patients lose weight from three to ten kilograms after surgery. The largest weight loss appears within the first three weeks after surgery. Postoperative weight loss is inappropriate as it increases the risk of impaired wound and bone healing, higher infection rate and impact functional level and wellbeing

Objective

To study whether systematic dietary interventions pre- and postoperatively can prevent weight loss in the first eight weeks after orthognathic surgery, thereby optimizing the patient's well-being

Facts

Patients undergoing orthognathic surgery have an increased basal metabolic rate. Added with fasting period increases risk for stress metabolism and weight loss. The estimated increased calorie intake is approximately 3-500 kcal/day depending on weight, height, age and surgery

Key aspects of pre- and postoperative care:

- Avoid long preoperative fasting
- Diet as early as possible postoperatively
- Early mobilization to facilitate protein synthesis and muscle function

Method

A three arms randomized controlled trial with two intervention groups and one control group consecutively including 50 patients in each arm

Questionnaires: Patients assess: Pain; Nausea; Swelling; Activity level; State of mind; Coping with daily activity, Energy to be social; Well-being from Visual Analogue Scale

Inclusion criteria: Patients who undergo single or double jaw surgery, ≥ 18 years old, mental competent and able to provide an informed written consent

Exclusion criteria: Diabetes Mellitus

Tentative results

Indicates that the postoperative weight loss is reduced in patients randomized to the two intervention groups compared with patients in the control group. The study is under process and includes currently 120 out of 150 patients

