

Considerations to establish the best orientation of the occlusal plane used in oral rehabilitation: A systematic review

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ADMINISTRATIVE INFORMATION

Support - SELF-FINANCED.

Review Stage at time of this submission - Piloting of the study selection process.

Conflicts of interest - None declared.

INPLASY registration number: INPLASY2025110012

Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 6 November 2025 and was last updated on 6 November 2025.

INTRODUCTION

Review question / Objective P: Articles in order to determinate the assessed the relationship between the occlusal plane and Camper's plane and location. I: Photography technique for determining the occlusal plane C: Other techniques include cephalometric analysis, articulator, interocclusal records, Camper's plane, and interpupillary line. O: Found the most common location on the tragus is the inferior part, middle part or superior location. S: Only randomized clinical trials.

Rationale Currently, no universally accepted method for locating the occlusal plane exists, as the choice of method is often contingent upon the clinical situation. Therefore, various authors recommend using techniques such as cephalometry, anatomical landmarks (e.g., the tragus), facial photography, and critical clinical analysis.

Condition being studied Research has shown that mandibular position is significantly influenced by tooth position, suggesting a potential impact on body posture, a finding clinically relevant to temporomandibular disorders (TMD).

METHODS

Search strategy The following keywords were utilized based on MeSH terms: (orientation) AND (Dental Occlusion OR Occlusal Plane OR Camper Plane).

Participant or population Population: Articles in order to determinate the assessed the relationship between the occlusal plane and Camper's plane and location.

Intervention Intervention: Photography technique for determining the occlusal plane.

Comparator Comparator: Other techniques include cephalometric analysis, articulator,

interocclusal records, Camper's plane, and interpupillary line.

Study designs to be included S: Only randomized clinical trials.

Eligibility criteria Others reviews articles, case reports, and letters to the editor, were excluded.

Information sources The search strategy employed various high-impact journal databases, including Medline via PubMed, ScienceDirect, Scopus, and SciELO.

Main outcome(s) Outcome: Found the most common location on the tragus is the inferior part, middle part or superior location.

Additional outcome(s) Outcome: Parameters to determine the location of the occlusal plane in edentulous patients.

Data management These articles goint to organized into groups, followed by a final filtering step based on their titles, abstracts, and full texts.

Quality assessment / Risk of bias analysis The assessment of the risk of bias of the selected observational studies will be carried out by both researchers using the Newcastle-Ottawa scale.

Strategy of data synthesis Newcastle-Ottawa scale: each case-control study was assessed according to three dimensions: 1) Study group selection; 2) Comparability between groups; and 3) Exposure.

Subgroup analysis At the end of each study, each study received a maximum score of 9 points.

Sensitivity analysis All articles scoring between seven and nine were considered low risk, while a score of six or less was regarded as high risk.

Language restriction In multiple languages.

Country(ies) involved Peru.

Keywords Camper's plane, occlusion, occlusal plane, oral rehabilitatio.

Contributions of each author

Author 1 - Daysi Susan Neyra-Quilca - Identifying the research question, searching for articles, reading them, and writing the manuscript until its completion.

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