

Literature Search Results from PubMed at the US NLM

Scientific Investigation Committee 2019 Literature Abstract Review 2018

The Committee



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Chair



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Jette Holbrook



Tim Walker

- Search results from NCBI (National Center for Biotechnology Information) at the NLM (US National Library of Medicine)
- * Parameters of the search for new articles: from 2017/11/01 to 2018/11/01
- Search strategy HQ (PubMed): ("centric relation"[mh] OR "dental occlusion"[mh] OR dental occlusion OR ((bite OR mouth OR night OR occlusal) AND (guard* OR splint*)) OR "Occlusal Adjustment"[mh]) OR (occlusal AND (adjustment OR equilibration)) OR
 "Temporomandibular Joint Disorders"[mh] OR tmd OR ((temporomandibular OR craniomandibular) AND (disorder* OR dysfunction* OR disfunction*))) OR "Tooth Wear"[mh]
 OR ((tooth OR teeth OR dental) AND (abrasion OR attrition OR erosion OR abfraction OR grind*)) OR ((sleep OR nocturnal) AND bruxism*) OR "Sleep Bruxism"[mh]) AND (manag* OR treat* OR therap* OR "therapy" [Subheading]) Filters: English, Dental journals.

- * Search yielded 1181 articles.
- * The search was divided in 221 high quality records (HQ) and 960 records named all items (AI).
- * Out of 221 HQ records all abstracts were available.
- Free HQ articles (open access): 4, 8, 9, 11, 12, 13, 16, 26, 28, 31, 32, 33, 34, 36, 44, 45, 46, 48, 53, 56, 57, 59, 69, 70, 75, 76, 81, 82, 84, 89, 91, 95, 100, 101, 103, 105, 106, 109, 110, 112, 113, 117, 118, 122, 123, 126, 130, 131, 133, 139, 144, 153, 154, 167, 174, 197, 200, 209, 211, 213, 219.

Search 960 All items yielded 289 Open Access articles

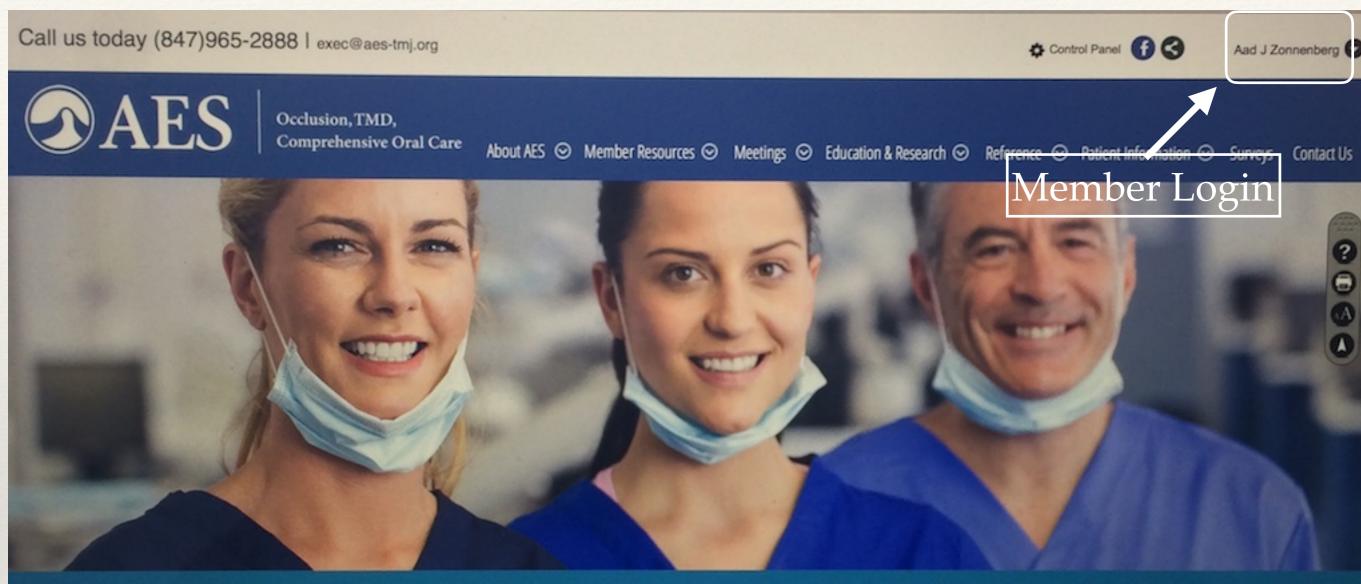
Free AI articles (open access): 1, 5, 6, 7, 9, 16, 18, 22 - 24, 26, 30, 38, 45, 49, 51, 54, 55, 56, 61 - 64, 70, 75, 76, 78, 83, 87, 95, 111, 113, 120, 122, 126 - 128, 131, 132, 145, 147, 151, 156, 157, 158, 159, 160, 161, 163, 165 - 167, 171, 174, 178, 180, 181, 182, 183, 185 - 191, 198, 200, 201, 202, 206, 207, 208, 214, 218, 237, 246, 251, 253, 265, 271, 275, 276, 277, 278, 279, 282, 285, 287, 291, 298, 301, 304 - 306, 307, 314, 320, 328, 330, 331, 332, 341, 344, 350, 355, 356, 357, 372, 375, 386 - 390, 399, 404 - 408, 410, 416, 417, 421, 425, 428, 431, 432, 435, 438 - 441, 445, 450, 451, 455, 459, 461, 462, 467, 473, 483, 484, 488, 496, 498, 499, 501, 503, 504, 509 - 511, 513, 519, 520, 522 - 524, 526, 528 - 530, 532, 534 - 536, 538, 541, 550, 551, 558, 560, 568, 572, 574, 581, 592, 595 - 598, 606, 609, 612 - 614, 617, 626, 629, 632, 639, 643, 645, 654, 655, 661, 667, 674, 678, 683, 685, 691, 692, 696, 698, 706, 708, 710, 711, 721, 725, 726, 733, 737 - 743, 753, 754, 758, 763, 765, 768, 771, 784, 791, 794, 795, 800, 803, 809, 817, 818, 824, 832, 835, 838, 840, 842, 843, 849, 852, 854, 859, 866, 873, 885, 887, 891, 892, 896, 899 - 901, 919, 929, 932, 935, 941, 943, 950, 953 - 955, 980, 981, 1040, 1070, 1077, 1106, 1126, 1129, 1138, 1140, 1142, 1171, 1174.

- Articles from CRANIO: 29
- * HQ: 212, 214, 215.
- All items: 74, 96, 106, 110, 169, 211, 242, 280, 409, 662, 731, 880, 959, 1027, 1068, 1069, 1085, 1085, 1013, 1125, 1147, 1157, 1158, 1165, 1172, 1173.
- * Article from JPD: 17
- * HQ: 48.
- All items: 14, 216, 263, 284, 308, 546, 619, 982, 1002, 1098, 1099, 1131, 1133, 1136, 1140, 1146.

- * Articles from other journals: 6
- * HQ:
- * All items:135, 221, 381, 605, 876, 1046.

Levels of evidence

- 1. Meta-analysis/Systematic Review of RCTs/Cohort/Case-control studies
- 2. Randomized Controlled Trials (RCTs)/Multicenter studies
- 3. Controlled Clinical Trials (without randomization)
- 4. Case-Controlled/Cohort Studies
- 5. Narrative/Literature/Descriptive Review of Qualitative Studies
- 6. Qualitative or Descriptive Studies
- 7. Opinion/Editorial/Case Report/Product/Animal/In vitro/Finite Element

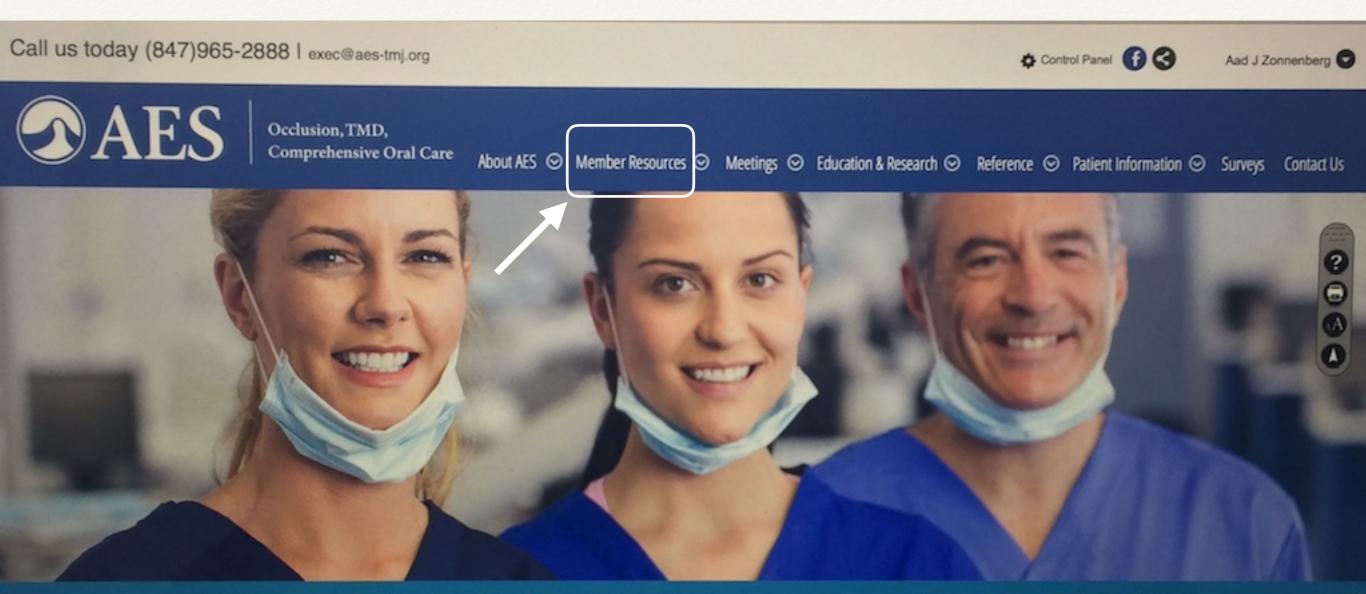


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The AES Scientific Investigation Committee is always looking for worthy research projects to support. For further information please contact committee chair Dr. Aad Zonnenberg at adriaanzonnenberg@me.com

The AES Scientific Investigation Committee completes a Scientific Literature Review annually. The following links are available for your perusal:

> AES 2016 Literature Search Results AES Lit Review Abstracts Presentation 2016-17

AES 2015-16 Scientific Literature Review Article Links

AES Literature Review 2014-15 & Abstracts

AES Literature Search - Abstract Review 2013 AES 2012 Literature Search Results AES 2012 Literature Search

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Final instructions

- * Click AES 2018 Literature Search Results
- * This literature search has been divided in
 - * 221 high quality records (HQ)
 - * 1189 all items records (AI), example # 56 from 2017
- * This presentation mainly contains HQ records
- * AES Lit Review Abstracts Presentation 2018-2019 contains this presentation

- A neview on Detection and Treatment Methods of Sleep Aprea.
- 53. Jayaraj R, Mohan J, Kanagasabai A. J Clin Diagn Res. 2017 Mar;11(3):VE01-VE03. doi: 10.7860/JCDR/2017/24129.9535. Epub 2017 Mar 1. Review. PMID: 28511486 Free PMC Article
- The Prevalence of Oropharyngeal Dysphagia in Adults Presenting with Temporomandibular Disorders Associated with RI
- 54. Systematic Review and Meta-analysis.

Gilheaney Ó, Zgaga L, Harpur I, Sheaf G, Kiefer L, Béchet S, Walshe M. Dysphagia. 2017 May 16. doi: 10.1007/s00455-017-9808-0. [Epub ahead of print] Review. PMID: 28508937

- Pathogenesis and FDG-PET/CT findings of Epstein-Barr virus-related lymphoid neoplasms.
- Toriihara A, Nakajima R, Arai A, Nakadate M, Abe K, Kubota K, Tateishi U. Ann Nucl Med. 2017 Jul;31(6):425-436. doi: 10.1007/s12149-017-1180-5. Epub 2017 May 11. Review. PMID: 28497429
- Temporomandibular disorders and whiplash injury: a narrative review.
- Landzberg G, El-Rabbany M, Klasser GD, Epstein JB.
 Oral Surg Oral Med Oral Pathol Oral Radiol. 2017 Aug;124(2):e37-e46. doi: 10.1016/j.cooo.2017.03.001. Epub 2017 Mar 10. Review.
 PMID: 28483470
- Treatment of Isolated Zygomatic Arch Fracture: Improved Outcomes with External Splinting.
- Hindin DI, Muetterties CE, Mehta C, Boukovalas S, Lee JC, Bradley JP. Plast Reconstr Surg. 2017 May;139(5):1162e-1171e. doi: 10.1097/PRS.00000000003281.

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Network Present Advanced Format: Abstract + Send to - Oral Surg Oral Med Oral Pathol Oral Pathol Oral Radiol, 2017 Aug;124(2):e37-e46. doi: 10.1016/j.ocoo.2017.03.001. Epub 2017 Mar 10. Temporomandibular disorders and whiplash injury: a narrative review. Landzberg G ¹ , El-Rabbany M ² , Klasser GD ³ , Epstein JB ⁴ . Muthor information Abstract OBJECTIVES: The objective of this study was to conduct a review investigating the relationship between temporomandibular disorders (TMDs) and whiplash injuries (Wis). STUDY DESIGN: The authors conducted a search of PubMed/Medline, Cochrane Database, and EMBASE for studies discussing the prevalence, incidence, severity, treatment, and prognosis of TMDs following Wis. English language studies published between January 2010 and March 2016 were included. Study quality was assessed by using the Ottawa-Newcastle scale. RESULTS: Eight studies investigating TMDs in patients with histories of WI were included. These studies reported associations between WIs and TMDs and an increase in symptom severity among patients with TMDs and a history of WIs. Additionally, patients with TMD and trauma histories display more severe subjective, objective, and psychological dysfunction compared with typical patients with TMDs. This results in poorer treatment outcomes. CONCLUSIONS: These findings highlight the need for early evaluation of patients with WI for TMDs and for a multidisciplinary approach to their management. Copyright @ 2017 Elsevier Inc. All rights reserved.	Help Full text links FULLSTEATABLIGHT Save items Add to Favorites Similar articles Similar articles Review Prevalence of whiplash trauma in TMD patients: a systematic revie [J Oral Rehabil. 2014] Review Temporomandibular disorder pain after whiplash trauma: a systema [J Orofac Pain. 2013] Review Whiplash-associated disorders and temporomandibular sym [Quintessence Int. 2011] The prevalence of temporomandibular disorders in patients with late whip [J Am Dent Assoc. 2013] Review [The relationship between whiplash injury and temporomandibular jc [Harefuah. 2013]
PMID: 28483470 DOI: 10.1016/j.oooo.2017.03.001	See all Related information



- * HQ Ref. # 20 24. Narrative Reviews in Dent Clin North Am 2018.
 - Cole HA, Carlsson CR. Mind-body considerations in orofacial pain.
 - * Castrillon EE, Exposto FG. Sleep bruxism and pain.
 - Fernandez G, Goncalves DAG, Conti P. Musculoskeletal disorders.
 - * Liang H. Imaging in orofacial pain.
 - * Crandall JA. An introduction to orofacial pain.



- * HQ Ref. # 30. Systematic review.
- Skog C, Fjellner J, Ekberg E, Hägman-Henrikson B. Tinnitus as a comorbidity to temporomandibular disorders. A systematic review. J Oral Rehabil 2019; 46:87-99.
- The finding that tinnitus is more common in patients with TMD means that it can be regarded as a comorbidity to TMD.
 Further well-designed and randomized studies with control groups are needed to investigate whether TMD treatment can be justified to try to alleviate tinnitus in patients with TMD and comorbidity of tinnitus.



- * AI Ref. # 122. Randomized controlled trial.
- Shousha TM, Soliman ES, Behiry MA. The effect of a short term conservative physiotherapy versus occlusive splinting on pain and range of motion in cases of myogenic temporomandibular joint dysfunction: a randomized controlled trial. J Phys Ther Sci 2018; 30:1156-60.
- Over a treatment period of 6 consecutive weeks, conservative physiotherapy could be a better initial treatment than occlusive splint in relieving pain and improving range of motion in cases of myogenic temporomandibular dysfunction.



- * AI Ref. # 185. Case-control/Cohort study.
- Alkhudhairy MW, Al Ramel F, Al Jader G, et al. A Self-Reported Association between Temporomandibular Joint Disorders, Headaches, and Stress. J Int Soc Prev Community Dent 2018; 8:371-80.
- This study clarifies and reiterates the intertwined power of both stress and headaches; the former being a role player in TMD progression and the latter its product.



- * AI Ref. # 188. Systematic review / meta-analysis
- Nandhini J, Ramasamy S, Ramya K, et al. Is nonsurgical management effective in temporomandibular joint disorders? - A systematic review and meta-analysis. Dent Res J 2018; 15:231-41.
- Our results suggest that the simplest, cost-effective nonsurgical treatments have a positive therapeutic effect on the initial management of TMJ disorders.



- * HQ Ref. # 48. Descriptive review
- Racich MJ. Occlusion, temporomandibular disorders, and orofacial pain: An evidence-based overview and update with recommendations. J Prosthet Dent 2018: 120:678-85.
- This paper presents an overview of dental disciplines involved in the treatment of orofacial pain, temporomandibular disorders (TMD), and occlusion and provides an evidence-based contemporary update of their interrelationships.



- * HQ Ref. # 50. Review/systematic review
- * Rinchuse DJ, Greene CS. Scoping review of systematic review abstracts about temporomandibular disorders: Comparison of search years 2004 and 2017. Am J Orthod Dentofacial Orthop 2018; 154:35-46.
- * There were only 8 TMD systematic reviews published in 2004 compared with 110 in 2017. Overall, the trend has been in the direction of better diagnostic procedures, more scientific concepts of etiology, and more conservative treatments for TMD.



- * HQ Ref. # 55. Narrative review.
- Kumar A, Spivakovski S. Bruxism- is botulinum toxin an effective treatment? J Evid Based Dent 2018; 19:59.
- The authors concluded that botulinum toxin represents a possible option for the management of sleep bruxism (SB), minimising symptoms and reducing the intensity of contractions rather than for SB itself.



- * HQ Ref. # 42, 43, 63, 65. Narrative reviews in Oral Maxillofac Surg Clin North Am 2018.
- Renapurkar SK. Surgical Versus Nonsurgical Management of Degenerative Joint Disease.
- * Heir G. The Efficacy of Pharmacologic Treatment of Temporomandibular Disorders.
- * Renapurkar SK. Discectomy Versus Disc Preservation for Internal Derangement of the Temporomandibular Joint.
- Kim S, Keith DA.Combined or Staged Temporomandibular Joint and Orthognathic Surgery for Patients with Internal Derangement and Dentofacial Deformities.



- * HQ Ref. # 66, 67, 68, 71. Narrative reviews in Oral Maxillofac Surg Clin North Am 2018.
- Schroff B. Malocclusion as a Cause for Temporo-mandibular Disorders and Orthodontics as a Treatment.
- * Dolwick MF, Widmer CG. Orthognathic Surgery as a Treatment for Temporomandibular Disorders.
- * Greene CS, Menchel HF. The Use of Oral Appliances in the Management of Temporomandibular Disorders.
- * Manfredini D. Occlusal Equilibration for the Management of Temporomandibular Disorders.



- * HQ Ref. # 108. Randomized controlled trial.
- Kokkola O, Suominen AL, Quintus V, et al. Efficacy of stabilisation splint treatment on the oral health-related quality of life-A randomized controlled one-year follow-up trial.
- Compared to masticatory muscle exercises and counselling alone, stabilization splint treatment was not more beneficial on self-perceived Oral Health-Related Quality of Life among TMD patients over a 1-year follow-up.



- * HQ Ref. # 105. Review
- * Kuhn M, Türp JC. Risk factors for bruxism. Swiss Dent J 2018; 128:118-24.
- * Knowledge of the identified risk factors may be useful when taking the medical history of bruxing patients. Although many of the described variables cannot be influenced by prophylactic or therapeutic means, we recommend the following patient-centered approach ("SMS therapy"): selfobservation, muscle relaxation, stabilization (Michigan) splint.



- * AI Ref. # 453. Systematic review/Meta-analysis.
- Fahkry H, Abd-Elwahab Radi I. Limited evidence suggests no benefit of temporomandibular joint lavage over conservative treatment for temporomandibular joint pain and dysfunction. J Evid Based Dent Pract 2018; 18:157-8.
- Temporomandibular lavage versus non-surgical treatments for temporomandibular disorders: A systematic review and meta-analysis. Bouchard C, Goulet JP, El-Ouazzani M, Fournier-Turgeon A. J Oral Maxillofac Surg 2017;75:1352-62.

- * AI Ref. # 501. Systematic review.
- Davoudi A, Khaki H, Mohammadi I, et al. Is arthrocentesis of temporomandibular joint with corticosteroids beneficial? A systematic review.
- Based on available RCTs, the arthrocentesis (AC) of TMJ with corticosteroid (CS) seems to result in similar findings to other therapeutic drugs, with no significant differences.



- * HQ Ref. # 122. Literature review
- Lin HH, Lonic D, Lo LJ. 3D printing in orthognathic surgery - A literature review.
- From the review, we can conclude that the use of 3D printing methods in orthognathic surgery provide the benefit of optimal functional and aesthetic results, patient satisfaction, and precise translation of the treatment plan.



- * HQ Ref. # 133. Review
- Alharby A, Alzayer H, Almahlawi A, et al. Parafunctional Behaviors and Its Effect on Dental Bridges. J Clin Med Res 2018; 10:73-6.
- Causes of parafunctional behaviors include anxiety, depression, smoking, caffeine intake, sleep disorders, or central neurotransmitter dysfunction. Parafunctional behaviors shorten the life expectancy of both fixed and removable protheses, and damage residual dentition and denture-bearing tissues.



- * AI Ref. # 619. Qualitative study.
- Wiens JP, Goldstein GR, Andrawis M, et al. Defining centric relation. J Prosthet Dent 2018; 120:114-22.
- * The CR Attributes Survey revealed a majority agreement or consensus for various CR attributes that should be considered for defining the term 'centric relation.' In contrast, those CR attributes with a plurality agreement, disagreement, or uncertainty outcomes should be considered for exclusion. The evaluated weakness of these latter attributes indicates the need for further research and reassessment.



- * AI Ref. # 605. Case-control study
- Andersson H, Sonnesson L. Sleepiness, occlusion, dental arch and palatal dimensions in children attention deficit hyperactivity disorder (ADHD).
- * The results indicate that sleepiness and palatal width, especially the more anterior skeletal part of the palate, may be affected in children with ADHD. The results may prove valuable in the diagnosis and treatment planning of children with ADHD.



- * HQ Ref. # 163. Systematic review/Meta-analysis.
- Guo H, Wang T, Nou X, et al. The risk factors related to bruxism in children: A systematic review and meta-analysis. Arch Oral Biol 2018; 86:18-34.
- * The risk factors related to bruxism were as follows: Male, gene, mixed position, moves a lot, anxiety, the nervous, psychological reactions, responsibility, secondhand smoke, snore loudly, restless sleep, sleep with light on, noise in room, "sleep hours, ≤8h", headache, objects biting, conduct problems, peer problems, emotional symptoms and mental health problems.



- * HQ Ref. # 176. Randomized controlled trial.
- Wahlund K, Larsson B. Long-term treatment outcome for adolescents with temporomandibular pain. Long-term treatment outcome for adolescents with temporomandibular pain. Acta Odontol Scand 2018; 76:153-60.
- * Adolescents treated with OA showed somewhat better sustained improvement over the extended follow-up period than those treated with relaxation training. Non-responders to treatment and females exhibited a poorer outcome. These groups need particular attention and extended or different treatments to achieve a better long-term outcome.



- * HQ Ref. # 210. Systematic review/Meta-analysis.
- Guo H, Wang T, Li X, et al. What sleep behaviors are associated with bruxism in children? A systematic review and meta-analysis. Sleep Breath 2017; 21:1013-23.
- Snoring, mouth breathing, restless sleep, drooling, stomach position during sleep, and lack of sleep were the risk factors related to bruxism in children.



- * AI Ref. # 876. Review/systematic review.
- * Klasser GD, Manfredini D, Goulet JP, de Laat A. Orofacial pain and temporomandibular disorders classification systems: A critical appraisal and future directions. J Oral Rehabil 2018; 45:258-68.
- Suggestions regarding the future direction for improving the classification process with the use of ontological principles rather than taxonomy are discussed.



- * HQ REF. # 69. (Systematic) Review.
- de Kanter RJAM, Battistuzi PGFCM, Truin JP.
 Temporomandibular Disorders: "Occlusion" Matters! Pain Res Manag 2018; May 15, 2018.
- Based on a Medline search of these terms over the past 40 years related to contemporary terms such as "Evidence Based Dentistry" and "Pyramid of Evidence," these methodological aspects are examined, resulting in recommendations for future research and TMD-occlusal therapy.



- * Greene CS. "The Ball on the Hill": A new perspective on TMJ functional anatomy. Orthod Craniofac Res 2018; 00:1-5.
- It is important for all dentists to recognize that their typical dentate patients are likely to have a healthy, well-adapted jaw position that does not need to be analyzed or changed. Furthermore, that jaw position must meet the standard advocated by Okeson when he speaks about a musculoskeletally stable orthopedic position.
- * Support for the musculoskeletally stable CR position: the stable orthopedic (SO) position.



- * Focus article in JOFPH, 2018
- Steenks MH, Türp JC, de Wijer A. Reliability and Validity of the Diagnostic Criteria for Temporomandibular Disorders Axis I in Clinical and Research Settings: A Critical Appraisal. JOFPH 2018; 32:7-18.
- The DC/TMD represents an improvement over the RDC/ TMD. Suggestions for improvement are made in this Focus Article. However, it is difficult to support the DC/TMD Axis I as long as several of its components are still being developed.



- * Systematic Review?? Fake news or fake information?
- Jimenez-Silva A, Tobar-Reyes J, Vivanco-Coke S, et al. Centric relation–intercuspal position discrepancy and its relationship with temporomandibular disorders. A systematic review. Acta Odontol Scand 2017; 75:463-74.
- Letter to the Editor of Acta Odontol Scand, E-mailed on January 3, 2019; expected to be answered within 3 weeks



- * The conclusion must be that the only acceptable outcome of this study, namely the evidence is low, may be true, not because of the facts extracted from the articles, but because of the comparison of the existing inconsistencies of CR, the lack of a comparable RDC/TMD diagnosis and various measuring methods of centric slide that cannot be compared.
- Conducting this systematic review is not even like comparing apples and oranges; it is comparing various fruits in a well-assorted fruit bowl, depending on which definition of centric relation (if at all) or measuring method was used.
- The term CR remains controversial, is confusing and needs to be abandoned and must be replaced by the SO position.



- If you have no in-depth knowledge of occlusion, centric relation and centric slide, the authors should have known better and avoid a systematic review on this particular topic.
- Using the service of a translator with no knowledge of the matter leads to erroneous wording and terminology, with its consequent interpretation.
- Obviously, a well-informed Review Board of a peer-reviewed journal would not accept publication of this study. Acta Odontol Scand needs an expert.

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