

Nicht-allergiebedingte dentale und orofaziale Befunde bei 625 Patienten mit Verdacht auf Unverträglichkeit gegenüber Dentalmaterialien

- [1] Jacobsen N, Hensten-Pettersen A. Occupational health problems and adverse patient reactions in orthodontics. *Eur J Orthod* 1989;11:254–64, <http://dx.doi.org/10.1093/oxfordjournals.ejo.a035993>.
- [2] Jacobsen N, Pettersen Ah. Occupational health problems and adverse patient reactions in periodontics. *J Clin Periodontol* 1989;16:428–33, <http://dx.doi.org/10.1111/j.1600-051X.1989.tb01671.x>.
- [3] Hensten-Pettersen A, Jacobsen N. Perceived side effects of biomaterials in prosthetic dentistry. *J Prosth Dent* 1991;65:138–44, [http://dx.doi.org/10.1016/0022-3913\(91\)90066-6](http://dx.doi.org/10.1016/0022-3913(91)90066-6).
- [4] Raap U, Stiesch M, Reh H, Kapp A, Werfel T. Investigation of contact allergy to dental metals in 206 patients. *Contact Derm* 2009;60:339–43, <http://dx.doi.org/10.1111/j.1600-0536.2009.01524.x>.
- [5] Raap U, Stiesch M, Kapp A. Contact allergy to dental materials. *J Dtsch Dermatol Ges* 2012;10:391–6, <http://dx.doi.org/10.1111/j.1610-0387.2012.07933.x>.
- [6] Gawkrödger DJ. Investigation of reactions to dental materials. *Br J Dermatol* 2005;153:479–85, <http://dx.doi.org/10.1111/j.1365-2133.2005.06821.x>.
- [7] Garhammer P, Schmalz G, Hiller K-A, Reitingner T, Stolz W. Patients with local adverse effects from dental alloys: frequency, complaints, symptoms, allergy. *Clin Oral Invest* 2001;5:240–9, <http://dx.doi.org/10.1007/s007840100127>.
- [8] Mittermüller P, Hiller K-A, Schmalz G, Buchalla W. Five hundred patients reporting on adverse effects from dental materials: frequencies, complaints, symptoms, allergies. *Dent Mater* 2018;34:1756–68, <http://dx.doi.org/10.1016/j.dental.2018.09.012>.
- [9] Schedle A, Örtengren U, Eidler N, Gabauer M, Hensten A. Do adverse effects of dental materials exist? What are the consequences, and how can they be diagnosed and treated? *Clin Oral Implants Res* 2007;18(Suppl 3):232–56, <http://dx.doi.org/10.1111/j.1600-0501.2007.01481.x>.
- [10] Kallus T, Mjör IA. Incidence of adverse effects of dental materials. *Eur J Oral Sci* 1991;99:236–40, <http://dx.doi.org/10.1111/j.1600-0722.1991.tb01890.x>.
- [11] Felton DA, Kanoy BE, Bayne SC, Wirthman GP. Effect of in vivo crown margin discrepancies on periodontal health. *J Prosth Dent* 1991;65:357–64, [http://dx.doi.org/10.1016/0022-3913\(91\)90225-I](http://dx.doi.org/10.1016/0022-3913(91)90225-I).
- [12] Krogh-Poulsen W. The functional analysis (Die Bewegungsanalyse). *Dtsch Zahnärztl Z* 1966;21:877–80.
- [13] Krogh-Poulsen W. Relations between localization of abrasion facets and pain in the masticatory musculature and its significance for diagnostics and treatment (Zusammenhänge zwischen Lokalisation von Abrasionsfacetten und

Schmerzen in der Kaumuskulatur und deren Bedeutung für Diagnostik und Behandlung). *Österr Z Stomatol* 1967;64:402–4.

[14] Navazesh M, Kumar SKS, University of Southern California School of Dentistry. Measuring salivary flow: challenges and opportunities. *J Am Dent Assoc* 2008;139(Suppl):35S–40S, <http://dx.doi.org/10.14219/jada.archive.2008.0353>.

[15] Saxer UP, Mühlemann HR. Motivation and education (Motivation und Aufklärung). *Schweiz Monatsschr Zahnmed* 1975;85:905.

[16] Jordan AR, Micheelis W. The Fifth German Oral Health Study (Fünfte Deutsche Mundgesundheitsstudie, DMS V); 2016.

[17] Lygre GB, Gjerdet NR, Grønningsaeter AG, Björkman L. Reporting on adverse reactions to dental materials—intraoral observations at a clinical follow-up. *Commun Dent Oral Epidemiol* 2003;31:200–6, <http://dx.doi.org/10.1034/j.1600-0528.2003.00037.x>.

[18] Lynde CB, Grushka M, Walsh SRA. Burning mouth syndrome: patch test results from a large case series. *J Cutan Med Surg* 2014;18:174–9, <http://dx.doi.org/10.2310/7750.2013.13096>.

[19] Scott A, Egner W, Gawkrödger DJ, Hatton PV, Sherriff M, vanNoort R, et al. The national survey of adverse reactions to dental materials in the UK: a preliminary study by the UK adverse reactions reporting project. *Br Dent J* 2004;196:471–7, <http://dx.doi.org/10.1038/sj.bdj.4811176>. [20] Langworth S, Björkman L, Elinder C-G, Järup L, Savlin P. Multidisciplinary examination of patients with illness attributed to dental fillings. *J Oral Rehabil* 2002;29:705–13, <http://dx.doi.org/10.1046/j.1365-2842.2002.00963.x>. [21] Meurman JH, Tarkkila L, Tiitinen A. The menopause and oral health. *Maturitas* 2009;63:56–62, <http://dx.doi.org/10.1016/j.maturitas.2009.02.009>. [22] Tillberg A, Berglund A, Mårell L, Bergdahl J, Eriksson N, Lindén G, et al. Changes in health over time in patients with symptoms allegedly caused by their dental restorative materials. *Commun Dent Oral Epidemiol* 2005;33:427–37, <http://dx.doi.org/10.1111/j.1600-0528.2005.00240.x>.

[23] Tillberg A, Mårell L, Berglund A, Eriksson N. Replacement of restorations in subjects with symptoms associated with dental restorations; a follow-up study. *Eur J Oral Sci* 2008;116:362–8, <http://dx.doi.org/10.1111/j.1600-0722.2008.00553.x>.

[24] Trombelli L, Farina R, Silva CO, Tatakis DN. Plaque-induced gingivitis: case definition and diagnostic considerations. *J Clin Periodontol* 2018;45(Suppl 20):S44–67, <http://dx.doi.org/10.1111/jcpe.12939>.

[25] Aarabi G, Reissmann DR, Seedorf U, Becher H, Heydecke G, Kofahl C. Oral health and access to dental care—a comparison of elderly migrants and non-migrants in Germany. *Ethn Health* 2018;23:703–17, <http://dx.doi.org/10.1080/13557858.2017.1294658>.

[26] Vamnes JS, Lygre GB, Grønningsaeter AG, Gjerdet NR. Four years of clinical experience with an adverse reaction unit for dental biomaterials. *Commun Dent Oral Epidemiol* 2004;32:150–7, <http://dx.doi.org/10.1111/j.0301-5661.2004.00148.x>.

- [27] Klein B, Thoppay JR, De Rossi SS, Ciarrocca K. Burningmouth syndrome. *Dermatol Clin* 2020;38:477–83,<http://dx.doi.org/10.1016/j.det.2020.05.008>.
- [28] Fark T, Hummel C, Hähner A, Nin T, Hummel T. Characteristics of taste disorders. *Eur Arch Otorhinolaryngol* 2013;270:1855–60,<http://dx.doi.org/10.1007/s00405-012-2310-2>.
- [29] Kolkka-Palomaa M, Jääskeläinen SK, Laine MA, Teerijoki-Oksa T, Sandell M, Forssell H. Pathophysiology of primary burning mouth syndrome with special focus on taste dysfunction: a review. *Oral Dis* 2015;21:937–48,<http://dx.doi.org/10.1111/odi.12345>.
- [30] Verhulst MJL, Loos BG, Gerdes VEA, Teeuw WJ. Evaluating all potential oral complications of diabetes mellitus. *Front Endocrinol* 2019;10:56,<http://dx.doi.org/10.3389/fendo.2019.00056>.
- [31] Scully C, Bagan J-V. Adverse drug reactions in the orofacial region. *Crit Rev Oral Biol Med* 2004;15:221–39,<http://dx.doi.org/10.1177/154411130401500405>.
- [32] Nederfors T, Isaksson R, Mörnstad H, Dahlöf C. Prevalence of perceived symptoms of dry mouth in an adult Swedish population—relation to age, sex and pharmacotherapy. *Commun Dent Oral Epidemiol* 1997;25:211–6,<http://dx.doi.org/10.1111/j.1600-0528.1997.tb00928.x>.
- [33] Eveson JW. Xerostomia. *Periodontol* 2000 2008;48:85–91,<http://dx.doi.org/10.1111/j.1600-0757.2008.00263.x>.
- [34] Mårell L, Bergdahl J, Tillberg A, Stenberg B, Berglund A. Psychological symptoms and self-image of patients with complaints attributed to dental restorative materials. *Clin Oral Investig* 2019;23:2805–11,<http://dx.doi.org/10.1007/s00784-018-2707-4>.
- [35] Türp JC, Schindler HJ. Screening for temporomandibular disorders: A sensible approach? *Schmerz* 2020;34:13–20,<http://dx.doi.org/10.1007/s00482-019-00432-1>.
- [36] Kim Y, Kim H, Kho HS. Characteristics of men and premenopausal women with burning mouth symptoms: a case-control study. *Headache* 2014;54:888–98,<http://dx.doi.org/10.1111/head.12338>.
- [37] Jiménez-Silva A, Peña-Durán C, Tobar-Reyes J, Frugone-Zambra R. Sleep and awake bruxism in adults and its relationship with temporomandibular disorders: a systematic review from 2003 to 2014. *Acta Odontol Scand* 2017;75:36–58,<http://dx.doi.org/10.1080/00016357.2016.1247465>.
- [38] De Luca Canto G, Singh V, Bigal ME, Major PW, Flores-Mir C. Association between tension-type headache and migraine with sleep bruxism: a systematic review. *Headache* 2014;54:1460–9, <http://dx.doi.org/10.1111/head.12446>.
- [39] Mundt T, Mack F, Schwahn C, Bernhardt O, Kocher T, Biffar R. Association between sociodemographic, behavioral, and medical conditions and signs of temporomandibular disorders across gender: results of the study of health in Pomerania (SHIP-0). *Int J Prosthodont* 2008;21:141–8.
- [40] Gesch D, Bernhardt O, Alte D, Kocher T, John U, Hensel E. Malocclusions and clinical signs or subjective symptoms of temporomandibular disorders (TMD) in adults.

Results of the population-based Study of Health in Pomerania (SHIP). *J Orofac Orthop* 2004;65:88–103, <http://dx.doi.org/10.1007/s00056-004-0338-7>.

[41] Shulman JD, Beach MM, Rivera-Hidalgo F. The prevalence of oral mucosal lesions in U.S. adults: data from the third national health and nutrition examination survey, 1988–1994. *J Am Dent Assoc* 2004;135:1279–86, <http://dx.doi.org/10.14219/jada.archive.2004.0403>.

[42] Cerchiari DP, de Moricz RD, Sanjar FA, Rapoport PB, Moretti G, Guerra MM. Burning mouth syndrome: etiology. *Braz J Otorhinolaryngol* 2006;72:419–23, [http://dx.doi.org/10.1016/s1808-8694\(15\)30979-4](http://dx.doi.org/10.1016/s1808-8694(15)30979-4).

[43] Picciani B, Santos V de C, Teixeira-Souza T, Izahias LM, Curty Á, Avelleira JC, et al. Investigation of the clinical features of geographic tongue: unveiling its relationship with oral psoriasis. *Int J Dermatol* 2017;56:421–7, <http://dx.doi.org/10.1111/ijd.13460>.

[44] González-Moles MÁ, Warnakulasuriya S, González-Ruiz I, González-Ruiz L, Ayén Á, Lenouvel D, et al. Worldwide prevalence of oral lichen planus: a systematic review and meta-analysis. *Oral Dis* 2020, <http://dx.doi.org/10.1111/odi.13323>.

[45] Li C, Tang X, Zheng X, Ge S, Wen H, Lin X, et al. Global prevalence and incidence estimates of oral lichen planus: a systematic review and meta-analysis. *JAMA Dermatol* 2020;156:172–81, <http://dx.doi.org/10.1001/jamadermatol.2019.3797>.

[46] Scully C, Beyli M, Ferreiro MC, Ficarra G, Gill Y, Griffiths M, et al. Update on oral lichen planus: etiopathogenesis and management. *Crit Rev Oral Biol Med* 1998;9:86–122, <http://dx.doi.org/10.1177/10454411980090010501>.

[47] Alrashdan MS, Cirillo N, McCullough M. Oral lichen planus: a literature review and update. *Arch Dermatol Res* 2016;308:539–51, <http://dx.doi.org/10.1007/s00403-016-1667-2>.

[48] Vilar-Villanueva M, Gándara-Vila P, Blanco-Aguilera E, Otero-Rey EM, Rodríguez-Lado L, García-García A, et al. Psychological disorders and quality of life in oral lichen planus patients and a control group. *Oral Dis* 2019;25:1645–51, <http://dx.doi.org/10.1111/odi.13106>. [49] Müller N, Pröschel P. Crown margin and periodontal reaction (Kronenrand und parodontale Reaktion). *Dtsch Zahnärztl Z* 1994;49:30–6.

[50] Knoernschild KL, Campbell SD. Periodontal tissue responses after insertion of artificial crowns and fixed partial dentures. *J Prosth Dent* 2000;84:492–8, <http://dx.doi.org/10.1067/mpr.2000.110262>.

[51] Donath K, Roth K. Histologic-morphometric studies to determine the cervical marginal fit of single and pontic crowns (Histologisch-morphometrische Studie zur Bestimmung des zervikalen Randschlusses von Einzel- und Pfeilerkronen). *Z Stomatol* 1987;84:53–73.

[52] Cifuentes M, Davari P, Rogers RS. Contact stomatitis. *Clin Dermatol* 2017;35:435–40, <http://dx.doi.org/10.1016/j.clindermatol.2017.06.007>.

- [53] Imam Al H, Özhatay EB, Benetti AR, Pedersen AML, Gotfredsen K. Oral health-related quality of life and complications after treatment with partial removable dental prosthesis. *J Oral Rehabil* 2016;43:23–30, <http://dx.doi.org/10.1111/joor.12338>.
- [54] GBD 2017 Oral Disorders Collaborators, Bernabé E, Marcenes W, Hernandez CR, Bailey J, Abreu LG, et al. Global, regional, and national levels and trends in burden of oral conditions from 1990 to 2017: a systematic analysis for the global burden of disease 2017 study. *J Dent Res* 2020;99:362–73, <http://dx.doi.org/10.1177/0022034520908533>.
- [55] James SL, Abate D, Abate KH, Abay SM, Abbafati C, Abbasi N, et al. Global, regional, and national incidence, prevalence, and years lived with disability for 354 diseases and injuries for 195 countries and territories, 1990–2017: a systematic analysis for the global burden of disease study 2017. *Lancet* 2018;392:1789–858, [http://dx.doi.org/10.1016/S0140-6736\(18\)32279-7](http://dx.doi.org/10.1016/S0140-6736(18)32279-7).
- [56] Gendreau L, Loewy ZG. Epidemiology and etiology of denture stomatitis. *J Prosthodont* 2011;20:251–60, <http://dx.doi.org/10.1111/j.1532-849X.2011.00698.x>.
- [57] Hahnel S, Schwarz S, Zeman F, Schäfer L, Behr M. Prevalence of xerostomia and hyposalivation and their association with quality of life in elderly patients in dependence on dental status and prosthetic rehabilitation: a pilot study. *J Dent* 2014;42:664–70, <http://dx.doi.org/10.1016/j.jdent.2014.03.003>.
- [58] Barbe AG. Medication-induced xerostomia and hyposalivation in the elderly: culprits, complications, and management. *Drugs Aging* 2018;35:877–85, <http://dx.doi.org/10.1007/s40266-018-0588-5>.
- [59] Flink H, Bergdahl M, Tegelberg A, Rosenblad A, Lagerlöf F. Prevalence of hyposalivation in relation to general health, body mass index and remaining teeth in different age groups of adults. *Commun Dent Oral Epidemiol* 2008;36:523–31, <http://dx.doi.org/10.1111/j.1600-0528.2008.00432.x>.
- [60] Schmalz G, Garhammer P. Biological interactions of dental cast alloys with oral tissues. *Dent Mater* 2002;18:396–406, [http://dx.doi.org/10.1016/s0109-5641\(01\)00063-x](http://dx.doi.org/10.1016/s0109-5641(01)00063-x).
- [61] Taylor TD, Morton TH. Ulcerative lesions of the palate associated with removable partial denture castings. *J Prosthodont* 1991;66:213–21, [http://dx.doi.org/10.1016/s0022-3913\(05\)80050-2](http://dx.doi.org/10.1016/s0022-3913(05)80050-2).
- [62] Garhammer P, Schmalz G, Hiller K-A, Reitingner T. Metal content of biopsies adjacent to dental cast alloys. *Clin Oral Implants Res* 2011;12:1402–1415. *Investig* 2003;7:92–7, <http://dx.doi.org/10.1007/s00784-003-0204-9>.
- [63] Garhammer P, Hiller K-A, Reitingner T, Schmalz G. Metal content of saliva of patients with and without metal restorations. *Clin Oral Investig* 2004;8:238–42, <http://dx.doi.org/10.1007/s00784-004-0281-4>.
- [64] Petoumenou E, Arndt M, Keilig L, Reimann S, Hoederath H, Eliades T, et al. Nickel concentration in the saliva of patients with nickel-titanium orthodontic appliances. *Am J Orthod Dentofacial Orthop* 2009;135:59–65, <http://dx.doi.org/10.1016/j.ajodo.2006.12.018>. View publication stats

