

Effects of exercise training on patients with CKD

Literatur 2016

1. Abe Y, Matsunaga A, Matsuzawa Ret al. Determinants of Slow Walking Speed in Ambulatory Patients Undergoing Maintenance Hemodialysis. PLoS One. 2016 Mar 28;11(3):e0151037. doi: 10.1371/journal.pone.0151037. PMID: 27018891
2. Aliasgharpour M, Abbasi Z, Pedram Razi S et al. The Effect of Stretching Exercises on Severity of Restless Legs Syndrome in Patients on Hemodialysis. Asian J Sports Med. 2016 Jun 11;7(2):e31001. doi: 10.5812/asjasm.31001. PMID: 27625757
3. Andig-Rost K, v. Gersdorf G. Sporttherapie während der Hämodialyse. DGfN 04/2016, S. 10
4. Beetham KS, Howden EJ, Krishnasamy R, Isbel NM, Coombes JS. Feasibility of higher intensity exercise in patients with chronic kidney disease. J Sports Med Phys Fitness. 2016 Jul 5. [Epub ahead of print] PubMed PMID: 27377256.
5. Bennett PN, Fraser S, Barnard R et al. Effects of an intradialytic resistance training programme on physical function: a prospective stepped-wedge randomized controlled trial. Nephrol Dial Transplant. 2016 Aug;31(8):1302-9. doi: 10.1093/ndt/gfv416. PMID: 26715763
6. Bučar Pajek M, Čuk I, Leskošek B et al. Six-Minute Walk Test in Renal Failure Patients: Representative Results, Performance Analysis and Perceived Dyspnea Predictors. PLoS One. 2016 Mar 16;11(3):e0150414. doi: 10.1371/journal.pone.0150414. PMID: 26982967
7. Chan D, Green S, Fiatarone Singh M, Barnard R, Cheema BS. Development, feasibility, and efficacy of a customized exercise device to deliver intradialytic resistance training in patients with end stage renal disease: Non-randomized controlled crossover trial. Hemodial Int. 2016 Jun 9. doi: 10.1111/hdi.12432. [Epub ahead of print] PubMed PMID: 27283780.
8. Chung YC, Yeh ML, Liu YM. Effects of Intradialytic Exercise on the Physical Function, Depression, and Quality of Life for Hemodialysis Patients: A Systematic Review and Meta-analysis of Randomized Controlled Trials. J Clin Nurs. 2016 Aug 17. doi: 10.1111/jocn.13514. [Epub ahead of print] Review. PMID: 27532211
9. Cigarroa I, Barriga R, Michéas C, Zapata-Lamana R, Soto C, Manukian T. [Effects of a resistance training program in patients with chronic kidney disease on hemodialysis]. Rev Med Chil. 2016 Jul;144(7):844-52. doi: 10.4067/S0034-98872016000700004. Spanish. PubMed PMID: 27661546.
10. Deschamps T. Let's programme exercise during haemodialysis (intradialytic exercise) into the care plan for patients, regardless of age. Br J Sports Med. 2016 Nov;50(22):1357-1358. doi: 10.1136/bjsports-2016-096356. No abstract available. PMID: 27421785
11. Dziubek W, Bulińska K, Kuztał M et al. Evaluation of Exercise Tolerance in Dialysis Patients Performing Tai Chi Training: Preliminary Study. Evid Based Complement Alternat Med. 2016;2016:5672580. doi: 10.1155/2016/5672580.PMID: 27547228
12. Dziubek W, Kowalska J, Kuztał M, Rogowski Ł, Gołębiowski T, Nikifur M, Szczepańska-Gieracha J, Zembroń-Łacny A, Klinger M, Woźniewski M. The Level of Anxiety and Depression in Dialysis Patients Undertaking Regular Physical Exercise Training--a Preliminary Study. Kidney Blood Press Res. 2016;41(1):86-98. doi: 10.1159/000368548. Epub 2016 Feb 15. PubMed PMID: 26872253.

13. Esgalhado M, Borges NA, Mafra D. Could physical exercise help modulate the gut microbiota in chronic kidney disease? <i>Future Microbiol.</i> 2016 May;11:699-707. doi: 10.2217/fmb.16.12. PMID: 27159232
14. Fournier J. Nurse-led home exercise programme improves physical function for people receiving haemodialysis. <i>Evid Based Nurs.</i> 2016 Jan;19(1):12. doi: 10.1136/eb-2015-102156. PMID: 26376906
15. Gerbig D, Eidenschin S. Sport- und Bewegungstherapie im Rahmen rehabilitativer Maßnahmen nach Nierentransplantation. <i>DGfN</i> 04/2016, S. 18
16. Ghossoub K, Ghanem B, Chelala DN et al. Physical activity among a cohort of hemodialysed Lebanese patients. <i>Ann Phys Rehabil Med.</i> 2016 Sep;59S:e56. doi: 10.1016/j.rehab.2016.07.130. PMID: 27676951
17. Gopaluni S, Sherif M, Ahmadouk NA. Interventions for chronic kidney disease-associated restless legs syndrome. <i>Cochrane Database Syst Rev.</i> 2016 Nov 7;11:CD010690. Review. PMID: 27819409
18. Graham-Brown MP, March DS, Churchward DR et al. Design and methods of CYCLE-HD: improving cardiovascular health in patients with end stage renal disease using a structured programme of exercise: a randomised control trial. <i>BMC Nephrol.</i> 2016 Jul 8;17(1):69. doi: 10.1186/s12882-016-0294-7. PMID: 27391774
19. Ha Dinh TT, Bonner A, Clark R, Ramsbotham J, Hines S. The effectiveness of the teach-back method on adherence and self-management in health education for Implement Rep. 2016 Jan;14(1):210-47. doi: 10.11124/jbisrir-2016-2296. PubMed people with chronic disease: a systematic review. <i>JBIS Database System Rev</i>
20. Habedank D, Schefold JC, Bernhardt C et al. Vasodilation and Exercise Capacity in Patients with End-Stage Renal Disease: A Prospective Proof-of-Concept Study. Habedank D, Schefold JC, Bernhardt C, Karhausen T, Doehner W, Anker SD, Reinke P. <i>Cardiorenal Med.</i> 2016 Nov;7(1):5059. PMID: 27994602
21. Hamada M, Yasuda Y, Kato S, Arafuka H, Goto M, Hayashi M, Kajita E, Maruyama S. The effectiveness and safety of modest exercise in Japanese patients with chronic kidney disease: a single-armed interventional study. <i>Clin Exp Nephrol.</i> 2016 Apr;20(2):204-11. doi: 10.1007/s10157-015-1147-6. Epub 2015 Jul 25. PubMed PMID: 26209188.
22. Han M, Williams S, Mendoza M, Ye X et al. Quantifying Physical Activity Levels and Sleep in Hemodialysis Patients Using a Commercially Available Activity Tracker. <i>Blood Purif.</i> 2016;41(1-3):194-204. doi: 10.1159/000441314. PMID: 26765515
23. Headley S, Germain M, Wood R, Joubert J, Milch C, Evans E, Cornelius A, Brewer B, Taylor B, Pescatello LS. The blood pressure response to acute and chronic exercise in chronic kidney disease. <i>Nephrology (Carlton).</i> 2016 Jan 20. doi: 10.1111/nep.12730. [Epub ahead of print] PubMed PMID: 26786187.
24. Hirai K, Ookawara S, Morishita Y. Sarcopenia and Physical Inactivity in Patients With Chronic Kidney Disease. <i>Nephrourol Mon.</i> 2016 Apr 26;8(3):e37443. doi: 10.5812/numonthly.37443. Review. PubMed PMID: 27570755; PubMed Central PMCID: PMC4983408.
25. Howden EJ, Lawley JS, Esler M et al. Potential role of endurance training in altering renal sympathetic nerve activity in CKD? <i>Auton Neurosci.</i> 2016 Nov 25. pii: S1566-0702(16)30263-6. doi: 10.1016/j.autneu.2016.11.002
26. Hristea D, Deschamps T, Paris A et al. Combining intra-dialytic exercise and nutritional supplementation in malnourished older haemodialysis patients: Towards better quality of

life and autonomy. <i>Nephrology</i> (Carlton). 2016 Sep;21(9):785-90. doi: 10.1111/nep.12752. PMID: 26890997
27. Izumi A, Kitamura M, Izawa KP. Effects of Exercise Training on Delaying Disease Progression in Patients with Chronic Kidney Disease: a Review of the Literature. <i>Rev Recent Clin Trials</i> . 2016 Jul 24. [Epub ahead of print] PubMed PMID: 27457349.
28. Jhamb M, McNulty ML, Ingalsbe G et al. Knowledge, barriers and facilitators of exercise in dialysis patients: a qualitative study of patients, staff and nephrologists. <i>BMC Nephrol</i> . 2016 Nov 24;17(1):192. PMID: 27881101
29. Johansen KL. Resistance Exercise in the Hemodialysis Population - Who Should Do the Heavy Lifting? <i>Am J Nephrol</i> . 2016;44(1):29-31. doi: 10.1159/000446866. No abstract available. PMID: 27351524
30. Kaltsatou A, Karatzaferi C, Mitrou GI, Poulianiti KP, Sakkas GK. Intra-Renal Hemodynamic Changes After Habitual Physical Activity in Patients with Chronic Kidney Disease. <i>Curr Pharm Des</i> . 2016;22(24):3700-14. Review. PubMed PMID: 27000827.
31. Katayama A, Miyatake N, Nishi H et al. Relationship between Changes in Physical Activity and Changes in Health-related Quality of Life in Patients on Chronic Hemodialysis with 1-Year Follow-up. <i>Acta Med Okayama</i> . 2016 Oct;70(5):353-361. PMID: 2777427
32. Koefoed M, Kromann CB, Juliussen SR, Hvidtfeldt D et al. Nutritional Status of Maintenance Dialysis Patients: Low Lean Body Mass Index and Obesity Are Common, Protein-Energy Wasting Is Uncommon. <i>PLoS One</i> . 2016 Feb 26;11(2):e0150012. doi: 10.1371/journal.pone.0150012. PMID: 26919440
33. Kutner NG, Zhang R, Huang Y et al. Lower C-reactive protein and better hemodialysis survival are associated with regular exercise activity: Longitudinal outcomes from the ACTIVE-ADIPOSE special study. <i>Hemodial Int</i> . 2016 Jul;20(3):473-83. doi: 10.1111/hdi.12408. PMID: 26954723
34. Leehey DJ, Collins E, Kramer HJ, Cooper C, Butler J, McBurney C, Jelinek C, Reda D, Edwards L, Garabedian A, O'Connell S. Structured Exercise in Obese Diabetic Patients with Chronic Kidney Disease: A Randomized Controlled Trial. <i>Am J Nephrol</i> . 2016;44(1):54-62. doi: 10.1159/000447703. PubMed PMID: 27385652.
35. Liao MT, Liu WC, Lin FH et al. Intradialytic aerobic cycling exercise alleviates inflammation and improves endothelial progenitor cell count and bone density in hemodialysis patients. <i>Medicine</i> (Baltimore). 2016 Jul;95(27):e4134. doi: 10.1097/MD.0000000000004134. PMID: 27399127
36. Löllgen H, Krause R. Rezept für Bewegung – Bewegung und körperliche Aktivität als “Poly-pill”. <i>DGfN</i> 04/2016, S. 4
37. Mallamaci F, Torino C, Tripepi G. Physical exercise in haemodialysis patients: time to start. <i>Nephrol Dial Transplant</i> . 2016 Aug;31(8):1196-8. doi: 10.1093/ndt/gfv450. No abstract available. PMID: 26908762
38. Manfredini F, Mallamaci F, D'Arrigo G et al. Exercise in Patients on Dialysis: A Multicenter, Randomized Clinical Trial. <i>J Am Soc Nephrol</i> . 2016 Dec 1. pii: ASN.2016030378. [Epub ahead of print] PMID: 27909047

39. Marinho SM, Mafra D, Pelletier S, Hage V, Teuma C, Laville M, Carraro Eduardo JC, Fouque D. In Hemodialysis Patients, Intradialytic Resistance Exercise Improves Osteoblast Function: A Pilot Study. <i>J Ren Nutr.</i> 2016 Sep;26(5):341-5. doi: 10.1053/j.jrn.2016.03.002. PubMed PMID: 27113628.
40. Marinho SM, Moraes C, Barbosa JE, Carraro Eduardo JC, Fouque D, Pelletier S, Mafra D. Exercise Training Alters the Bone Mineral Density of Hemodialysis Patients. <i>J Strength Cond Res.</i> 2016 Oct;30(10):2918-23. doi: 10.1519/JSC.0000000000001374. PubMed PMID: 26863587.
41. Martin-Alemañy G, Valdez-Ortiz R, Olvera-Soto G et al. The effects of resistance exercise and oral nutritional supplementation during hemodialysis on indicators of nutritional status and quality of life. <i>Nephrol Dial Transplant.</i> 2016 Oct;31(10):1712-20. doi: 10.1093/ndt/gfw297. PMID: 27510532
42. Matsuzawa R, Hoshi K, Yoneki K, Matsunaga A. Evaluating the effectiveness of exercise training on elderly patients who require haemodialysis: study protocol for a systematic review and meta-analysis. <i>BMJ Open.</i> 2016 May 26;6(5):e010990. doi: 10.1136/bmjopen-2015-010990. PubMed PMID: 27231003; PubMed Central PMCID: PMC4885427.
43. Mosconi G, Angelini ML, Balzi W et al. Can Solid-Organ-Transplanted Patients Perform a Cycling Marathon? Trends in Kidney Function Parameters in Comparison With Healthy Subjects. <i>Transplant Proc.</i> 2016 Mar;48(2):415-9. doi: 10.1016/j.transproceed.2015.12.042. PMID: 27109968
44. Olvera-Soto MG, Valdez-Ortiz R, López Alvarenga JC et al. Effect of Resistance Exercises on the Indicators of Muscle Reserves and Handgrip Strength in Adult Patients on Hemodialysis. <i>J Ren Nutr.</i> 2016 Jan;26(1):53-60. doi: 10.1053/j.jrn.2015.06.006. PMID: 26264173
45. Ookawara S, Miyazawa H, Ito K et al. Blood Volume Changes Induced By Low-Intensity Intradialytic Exercise in Long-Term Hemodialysis Patients. <i>ASAIO J.</i> 2016 Mar-Apr;62(2):190-6. doi: 10.1097/MAT.0000000000000320. PMID: 26720736
46. Parker K. Intradialytic Exercise is Medicine for Hemodialysis Patients. <i>Curr Sports Med Rep.</i> 2016 Jul-Aug;15(4):269-75. doi: 10.1249/JSR.0000000000000280. PMID: 27399824
47. Phan K, Jia F, Kamper SJ. Effects of regular physical exercise training in adults with chronic kidney disease (PEDro synthesis). <i>Br J Sports Med.</i> 2016 Mar;50(5):317-8. doi: 10.1136/bjsports-2015-095240. PubMed PMID: 26294443.
48. Pomidori L, Lamberti N, Malagoni AM et al. Respiratory muscle impairment in dialysis patients: can minimal dose of exercise limit the damage? A Preliminary study in a sample of patients enrolled in the EXCITE trial. <i>J Nephrol.</i> 2016 Dec;29(6):863-869. PMID: 27312989
49. Rahimimoghadam Z, Rahemi Z, Mirbagher Ajorpaz N, Sadat Z. Effects of Pilates exercise on general health of hemodialysis patients. <i>J Bodyw Mov Ther.</i> 2017 Jan;21(1):86-92. doi: 10.1016/j.jbmt.2016.05.012. PMID: 28167196
50. Rosa CS, Bueno DR, Souza GD, Gobbo LA et al. Factors associated with leisure-time physical activity among patients undergoing hemodialysis. <i>BMC Nephrol.</i> 2015 Nov 27;16:192. doi: 10.1186/s12882-015-0183-5. PMID: 26613791
51. Roxo RS, Xavier VB, Miorin LA et al. Impact of neuromuscular electrical stimulation on functional capacity of patients with chronic kidney disease on hemodialysis. <i>J Bras Nefrol.</i> 2016 Jul-Sep;38(3):344-350. doi: 10.5935/0101-2800.20160052. PMID: 27737393
52. Saitoh M, Ogawa M, Dos Santos MR et al. Effects of Intradialytic Resistance Exercise on Protein Energy Wasting, Physical Performance and Physical Activity in Ambulatory Patients

<p>on Dialysis: A Single-Center Preliminary Study in a Japanese Dialysis Facility. <i>Ther Apher Dial.</i> 2016 Dec;20(6):632-638. doi: 10.1111/1744-9987.12447. PMID: 27523574</p>
<p>53. Shin JH, Kang KW, Kim JH et al. Treadmill exercise-induced E/e' elevation as a predictor of cardiovascular event in end-stage renal disease on peritoneal dialysis. <i>Korean J Intern Med.</i> 2016 Nov 11. doi: 10.3904/kjim.2016.254. [Epub ahead of print] PMID: 27832685</p>
<p>54. Stenvinkel P, Carrero JJ, von Walden F, Ikizler TA, Nader GA. Muscle wasting in end-stage renal disease promulgates premature death: established, emerging and potential novel treatment strategies. <i>Nephrol Dial Transplant.</i> 2016 Jul;31(7):1070-7. doi: 10.1093/ndt/gfv122. Epub 2015 Apr 24. Review. PubMed PMID: 25910496.</p>
<p>55. Stray-Gundersen J, Howden EJ, Parsons DB, Thompson JR. Neither Hematocrit Normalization nor Exercise Training Restores Oxygen Consumption to Normal Levels in Hemodialysis Patients. <i>J Am Soc Nephrol.</i> 2016 May 6. pii: ASN.2015091034. PMID: 27153927.</p>
<p>56. Thompson S, Clark A, Molzahn A et al. Increasing the uptake of exercise programs in the dialysis unit: a protocol for a realist synthesis. <i>Syst Rev.</i> 2016 Apr 21;5:67. doi: 10.1186/s13643-016-0224-6. PMID: 27103588</p>
<p>57. Thompson S, Klarenbach S, Molzahn A et al. Randomised factorial mixed method pilot study of aerobic and resistance exercise in haemodialysis patients: DIALY-SIZE! <i>BMJ Open.</i> 2016 Sep 6;6(9):e012085. doi: 10.1136/bmjopen-2016-012085. PMID: 27601500</p>
<p>58. Tomayko EJ, Kistler BM, Fitschen PJ et al. Intradialytic protein supplementation reduces inflammation and improves physical function in maintenance hemodialysis patients. <i>Asia Pac J Clin Nutr.</i> 2016;25(2):292-9. doi: 10.6133/apjcn.2016.25.2.10. PMID: 25455421</p>
<p>59. Tsuyuki K, Kohno K, Ebine K et al. Utility of Exercise-Induced Zero TBI Sign in Patients on Maintenance Hemodialysis. <i>Ann Vasc Dis.</i> 2016;9(3):149-153. PMID: 27738454</p>
<p>60. Tucker PS, Scanlan AT, Vella RK, Dalbo VJ. Genomic Integrity Is Favourably Affected by High-Intensity Interval Training in an Animal Model of Early-Stage Chronic Kidney Disease. <i>Sports Med Open.</i> 2016 Dec;2(1):28. PubMed PMID: 27747783.</p>
<p>61. Wang AY, Sherrington C, Toyama T et al. Muscle strength, mobility, quality of life and falls in patients on maintenance haemodialysis: A prospective study. <i>Nephrology (Carlton).</i> 2016 Feb 17. doi: 10.1111/nep.12749. PMID: 26890468</p>
<p>62. Wilkinson TJ, Shur NF, Smith AC. "Exercise as medicine" in chronic kidney disease. <i>Scand J Med Sci Sports.</i> 2016 Aug;26(8):985-8. doi: 10.1111/sms.12714. Review. PMID: 27334146</p>
<p>63. Yasui S, Shirai Y, Tanimura M, Matsuura S et al. Prevalence of protein-energy wasting (PEW) and evaluation of diagnostic criteria in Japanese maintenance hemodialysis patients. <i>Asia Pac J Clin Nutr.</i> 2016;25(2):292-9. doi: 10.6133/apjcn.2016.25.2.10. PMID: 27222412</p>
<p>64. Ye X, Shafi S, Negrete A, Davis WN, Sarac E, Negrete AM, Negrete H. Home blood pressure monitor use in patients with chronic kidney disease. <i>Blood Press.</i> 2016 Apr 22:1-6. [Epub ahead of print] PubMed PMID: 27104796.</p>
<p>65. Zhang L, Luo H, Kang G et al. The association between physical activity and mortality among patients undergoing maintenance hemodialysis. <i>Int J Nurs Pract.</i> 2016 Dec 27. doi: 10.1111/ijn.12505.</p>

66. Zhao C, Ma H, Yang L, Xiao Y. Long-term bicycle riding ameliorates the depression of the patients undergoing hemodialysis by affecting the levels of interleukin-6 and interleukin-18. *Neuropsychiatr Dis Treat*. 2016 Dec 28;13:91-100. doi: 10.2147/NDT.S124630.PMID: 28096677