

Interventions for long COVID treatments

Prepared for the OUTPOST APT, HEAL COVID and ALCAP MRFF-funded projects

July 2025 (search performed on 04/08/2025)

Previously, our library up to the end of 1st July 2025 (June 2025 update) had included a total of 179 RCTs. These trials were identified through a comprehensive systematic search on PubMed, Cochrane and Embase, plus pre-print servers. The search is also supplemented with updates from long COVID reviews that are being conducted by EPPI-Centre and Epistemonikos.

The most recent July 2025 monthly update (published studies up to 1st August 2025) was completed by the Bond team on 04/08/2025 and retrieved six new RCTs on long COVID which brings our total library to 185 RCTs. These six new studies focused on;

- Exercise- (k=2),
- Dietary - (k=2),
- Therapeutic- (k=2) (see Table 1).

The comprehensive data base of all published trials on long COVID treatments, along with historical search results from the projects inception, is available on the [Bond Institute for Evidence Based Healthcare website](#).

Table 1: List of RCTs included in the July 2025 update

Reference	Taxonomy category
Bunker, T., Horne, B.D., Baldwin, M.D. et al. Intermittent fasting and a no-sugar diet for Long COVID symptoms: a randomized crossover trial. Sci Rep 15, 27563 (2025). https://doi.org/10.1038/s41598-025-07461-0	Dietary

Elgayar SL, Bakkar LM, Omar MG, Elgendy SM, Elhamrawy MY. Effects of aerobic, resistance, and combined exercises on ventilatory function and quality of life in men with chronic post-COVID pulmonary fibrosis: A randomized controlled trial. Vol. 29.101247. Brazilian journal of physical therapy. 2025 Jul 30. https://www.sciencedirect.com/science/article/pii/S141335525000760?via%3Dihub	Exercise
Kopp J, Künzi L, Rüegg S, et al. Effects of Pycnogenol® in post-COVID-19 condition (PYCNOVID): A single-center, placebo controlled, quadruple-blind, randomized trial. medRxiv. http://dx.doi.org/10.1101/2025.06.12.25329489	Dietary: supplement-pine bark
Kroll D, Gloeckl R, Schneeberger T, et al. <i>Effects of cranial electrotherapy stimulation in patients with post COVID-19 condition on anxiety symptoms - a randomised controlled trial.</i>:1-12. <i>Respiration; international review of thoracic diseases</i>. 2025 Jul 24. https://doi.org/10.1159/000547385	Therapeutic- electrotherapy stimulation
Oliver-Mas S, Matias-Guiu J, Delgado-Alonso C, et al. <i>A randomized comparative feasibility study of neuromodulation and cognitive training for post-COVID fatigue</i>. Vol. 15. 2025:26818. https://www.nature.com/articles/s41598-025-09772-8.pdf	Therapeutic- transcranial direct stimulation with cognitive training
Promsrisuk T, Srithawong A, Kongsui R, et al. Therapeutic Effects of Slow Deep Breathing on Cardiopulmonary Function, Physical Performance, Biochemical Parameters, and Stress in Older Adult Patients with Long COVID in Phayao, Thailand. <i>Annals of Geriatric Medicine and Research</i>. 2025 29(2):240-253. https://doi.org/10.4235/agmr.24.0175	Exercise- “Slow deep breathing exercises”

In the absence of substantial high-quality trial evidence for interventions of interest (e.g. antivirals), the Living Evidence Group has commenced a systematic review for low dose naltrexone in long COVID. As there are no published RCTs on this drug to date, the Living Evidence Group will identify and review research literature from pre-post studies of low dose naltrexone in long COVID. This review is underway and the results will be reported to the project team shortly.

The table below lists all the trials and systematic reviews that have been identified since the beginning of the search. Please refer to Appendix A for a full reference list of RCTs that have been included to date.

Table 2. Updated summary of RCTs for long COVID treatments

Taxonomy categories	Systematic reviews	Registered clinical trials	RCTs														
			Jun - 24	Jul- 24	Aug- 24	Sep -24	Oct-24	Nov- 24	Dec- 24	Jan -25	Feb- 25	Mar- 25	Apr-25	May- 25	June 25	July 25	Total
Pharmacological interventions			19	1	0	1	0	1	0	1	0	1	1	0	2	0	27
Acetylcholinesterase inhibitor			0														0
Anticoagulant										1							1
Antidepressant		3	2			1											3
Antifibrotic		1	1														1
Antihistamine		1	0														0
Antivirals	1	7	0	1									1				2

Beta Blockers			1														1
Corticosteroids	5		0														0
Enzyme Therapeutics			0									1					1
Mood stabilizer			0														0
Targeted drugs			2														2
Multiple	2		0														0
NSAIDs (*anti-inflammatory)		5	0														0
Olfactory function/anosmia			11												2		13
Other (BrainMax, AXA1125)			2					1									3
Non-pharmacological			83	6	2	3	8	6	7	5	8	8	5		5	6	158
Physical Activity and physical therapy	31		37	1		1	5	1	3	3	2	3		3		2	61
Therapeutic procedures	6		17	1	2	1		2	1		3	3	2		4	2	38
Complementary and Alternative medicine	5		6			1	1		1		3		1	3			16
Behavioural, psychological, educational	2		6	1			1		1			2	1	1			13

Diet and dietary supplements	2		17	3			1	2	1	2			1		1	2	30
Other non-drug			0														0
Both drug and non-drug interventions	2		0														0
Full texts included	56	20	102	7	2	4	8	6	7	6	8	9	6	7	7	6	185

bovhyaluronidase azoximer (longidase), # Targeted drugs- includes both Leronlimab-CCR5-, and RNase

Appendix A: Reference list of all studies included to date

Pharmacological interventions n=27

Abdelazim MH, Abdelazim AH. Effect of Sodium Gluconate on Decreasing Elevated Nasal Calcium and Improving Olfactory Function Post COVID-19 Infection. Am J Rhinol Allergy. 2022;36(6):841-8.	pre July 2024
Abdelazim MH, Abdelazim AH, Moneir W. The effect of intra-nasal tetra sodium pyrophosphate on decreasing elevated nasal calcium and improving olfactory function post COVID-19: a randomized controlled trial. Allergy Asthma Clin Immunol. 2022;18(1):67.	pre July 2024
Abdelazim MH, Mandour Z, Abdelazim AH, Ismaiel WF, Gamal M, Abourehab MAS, et al. Intra Nasal Use of Ethylene Diamine Tetra Acetic Acid for Improving Olfactory Dysfunction Post COVID-19. Am J Rhinol Allergy. 2023;37(6):630-7.	pre July 2024
Altemani A, Alanazi M, Altemani A, Alharbi A, Alsahali S, Alotaib N, et al. The Efficacy of Sodium Phytate as a Natural Chelating Agent in Reducing Elevated Calcium Levels in Nasal Mucus Among Individuals Experiencing Olfactory Dysfunction Following COVID-19: A Prospective Randomized Double-Controlled Clinical Trial. American journal of rhinology & allergy. 2023;38:116-22.	pre July 2024
Andrews JS, Boonyaratankornkit JB, Krusinska E, Allen S, Posada JA. Assessment of the Impact of RNase in Patients With Severe Fatigue Related to Post-Acute Sequelae of SARS-CoV-2 Infection (PASC): A Randomized Phase 2 Trial of RSLV-132. Clin Infect Dis. 2024.	pre July 2024
Dal Negro R, Turco P, Povero M. Nebivolol: an effective option against long-lasting dyspnoea following COVID-19 pneumonia - a pivotal double-blind, cross-over controlled study. Multidisciplinary respiratory medicine. 2022;17:886.	pre July 2024
Gaylis NB, Ritter A, Kelly SA, Pourhassan NZ, Tiwary M, Sacha JB, et al. Reduced Cell Surface Levels of C-C Chemokine Receptor 5 and Immunosuppression in Long Coronavirus Disease 2019 Syndrome. Clin Infect Dis. 2022;75(7):1232-4.	pre July 2024
Gupta S, Lee JJ, Perrin A, Khan A, Smith HJ, Farrell N, et al. Efficacy and Safety of Saline Nasal Irrigation Plus Theophylline for Treatment of COVID-19-Related Olfactory Dysfunction: The SCENT2 Phase 2 Randomized Clinical Trial. JAMA Otolaryngol Head Neck Surg. 2022;148(9):830-7.	pre July 2024

Hamed S, Ahmed M. The effectiveness of cerebrolysin, a multi-modal neurotrophic factor, for treatment of post-covid-19 persistent olfactory, gustatory and trigeminal chemosensory dysfunctions: a randomized clinical trial. Expert review of clinical pharmacology. 2023;16:1261-76.	pre July 2024
Hintschich CA, Dietz M, Haehner A, Hummel T. Topical Administration of Mometasone Is Not Helpful in Post-COVID-19 Olfactory Dysfunction. Life (Basel). 2022;12(10).	pre July 2024
Imam MS, Abdelazim MH, Abdelazim AH, Ismaiel WF, Gamal M, Abourehab MAS, et al. Efficacy of pentasodium diethylenetriamine pentaacetate in ameliorating anosmia post COVID-19. Am J Otolaryngol. 2023;44(4):103871.	pre July 2024
Kerget B, Çil G, Araz Ö, Alper F, Akgün M. Comparison of two antifibrotic treatments for lung fibrosis in post-COVID-19 syndrome: A randomized, prospective study. Medicina clinica (English ed). 2023;160:525-30.	pre July 2024
Kwan ATH, Guo Z, Ceban F, Le GH, Wong S, Teopiz KM, et al. Assessing the Effects of Metabolic Disruption, Body Mass Index and Inflammation on Depressive Symptoms in Post-COVID-19 Condition: A Randomized Controlled Trial on Vortioxetine. Adv Ther. 2024;41(5):1983-94.	pre July 2024
Lasheen H, Abou-Zeid M. Olfactory mucosa steroid injection in treatment of post-COVID-19 olfactory dysfunction: a randomized control trial. The Egyptian Journal of Otolaryngology. 2023;39.	pre July 2024
Mahadev A, Hentati F, Miller B, Bao J, Perrin A, Kallogjeri D, et al. Efficacy of Gabapentin For Post-COVID-19 Olfactory Dysfunction: The GRACE Randomized Clinical Trial. JAMA otolaryngology-- head & neck surgery. 2023;149:1111-.	pre July 2024
McIntyre RS, Phan L, Kwan ATH, Mansur RB, Rosenblat JD, Guo Z, et al. Vortioxetine for the treatment of post-COVID-19 condition: a randomized controlled trial. Brain. 2024;147(3):849-57.	pre July 2024
Schmidt F, Azar C, Goektas O. Treatment of Olfactory Disorders After SARS - CoViD 2 Virus Infection. Ear, nose, & throat journal. 2023;1455613231168487-014556132311684.	pre July 2024
Tanashyan M, Morozova S, Raskurazhev A, Kuznetsova P. A prospective randomized, double-blind placebo-controlled study to evaluate the effectiveness of neuroprotective therapy using functional brain MRI in patients with post-covid chronic fatigue syndrome. Biomed Pharmacother. 2023;168:115723.	pre July 2024

Tanashyan MM, Raskurazhev AA, Kuznetsova PI, Bely PA, Zaslavskaya KI. [Prospects and possibilities for the treatment of patients with long COVID-19 syndrome]. Ter Arkh. 2022;94(11):1285-93.	pre July 2024
Geng LN, Bonilla H, Hedlin H, Jacobson KB, Tian L, Jagannathan P, et al. Nirmatrelvir-Ritonavir and Symptoms in Adults With Postacute Sequelae of SARS-CoV-2 Infection: The STOP-PASC Randomized Clinical Trial. JAMA Intern Med. 2024.	July 2024
Guttuso T, Jr., Zhu J, Wilding GE. Lithium Aspartate for Long COVID Fatigue and Cognitive Dysfunction: A Randomized Clinical Trial. JAMA Netw Open. 2024;7(10):e2436874.	Sept 2024
Avdeev S, Ignatova G, Drapkina O, Popova V, Melnikova E, Chudinovskikh T, et al. Bovhyaluronidase azoximer for long-term pulmonary sequelae of COVID-19: a randomized, double-blind, placebo-controlled trial. 2024	Nov 2024
Hohberger, B., M. Ganslmayer, T. Harrer, F. Kruse, S. Maas, T. Borst, R. Heimke-Brinck, A. Stog, T. Knauer, E. Rühl, V. Zeisberg, A. Skornia, A. Bartsch, A. Ströbel, M. Wytopil, C. Merkel, S. Hofmann, K. G. Schmidt, P. Lakatos, J. Schottenhamml, M. Herrmann, C. Mardin and J. Rech (2024). Safety, tolerability and clinical effects of BC007 (Rovunaptabin) on fatigue and quality of life in patients with post-COVID syndrome (reCOVer): a prospective, exploratory, randomised, placebo-controlled, double-blind, crossover phase IIa clinical trial. medRxiv.	Jan 2025
Nakamura K, Kondo K, Oka N, Yamakawa K, Ie K, Goto T, et al. Donepezil for Fatigue and Psychological Symptoms in Post-COVID-19 Condition: A Randomized Clinical Trial. JAMA network open.8(3):e250728.	Mar 2025
Sawano, M., B. Bhattacharjee, C. Caraballo, R. Khera, S. X. Li, J. Herrin, D. Christian, A. Coppi, F. Warner, J. Holub and et al. (2025). Nirmatrelvir–ritonavir versus placebo–ritonavir in individuals with long COVID in the USA (PAX LC): a double-blind, randomised, placebo-controlled, phase 2, decentralised trial.	Apr 2025
Topical Glutamate Diacetate: A Promising Therapy for Post-Coronavirus Disease 2019 Olfactory Dysfunction Through Calcium Modulation - Majed A. Algarni, Mohammed S. Alharthi, Fahad H. Baali, Abdulaziz I. Alzarea, Adnan Alharbi, Wadia S. Alruqayb, Ahmed H. Abdelazim, Mohamed H. Abdelazim, 2025	June 2025
Intra-nasal Disodium Orthophosphate Is Beneficial in Improving Olfactory Dysfunction Post COVID-19 - Mohamed S. Imam, Manal A. A. Alghamdi, Jasmine N. A. Albukhari, Shoug M. I. AlAtawi, Dhair T. M. Altuwariqi, Jood A. H. Mashoon Shen, Shahad A. H. Mathkoor, Bayan S. Al Talhi, Raghad S. Alosaimi, Ghada A. Alzahrani, Rahaf S. Althobaity, Shomokh A. M. Alhothly, Yahia M. A. Dawood, Mahmoud E. Alsobky, 2025	June 2025

Non-pharmacological interventions = 152

Physical activity and physical therapy n=61

Ahmad AM, Mohamed Awad Allah SA, Abd Elhaseeb GA, Elsharawy DE, Ahmed HS, Mohamed Abdelwahab MA. Effects of conventional versus virtual reality-simulated treadmill exercise on fatigue, cognitive function, and participant satisfaction in post-COVID-19 subjects. A randomized trial. J Exerc Sci Fit. 2024;22(4):316-21.	pre July 2024
Alsharidah A, Kamel F, Alanazi A, Alhawsah E, Alharbi H, Alrshedi Z, et al. A Pulmonary Telerehabilitation Program Improves Exercise Capacity and Quality of Life in Young Females Post-COVID-19 Patients. Annals of rehabilitation medicine. 2023;47:502-10.	pre July 2024
Berenguel Senén A, Gadella Fernández A, Godoy López J, Borrego Rodríguez J, Gallango Brejano M, Cepas Guillén P, et al. Functional rehabilitation based on therapeutic exercise training in patients with postacute COVID syndrome (RECOVER). Revista espanola de cardiologia (English ed). 2023;77:167-75.	pre July 2024
Bileviciute-Ljungar I, Norrefalk J, Borg K. Improved Functioning and Activity According to the International Classification of Functioning and Disability after Multidisciplinary Telerehabilitation for Post-COVID-19 Condition-A Randomized Control Study. Journal of clinical medicine. 2024;13:970-.	pre July 2024
Calvo-Paniagua J, Díaz-Arribas MJ, Valera-Calero JA, Ramos-Sánchez M, Fernández-de-Las-Peñas C, Navarro-Santana MJ, et al. An Educational, Exercise and Occupational Therapy-Based Telerehabilitation Program versus 'Wait-and-See' for Improving Self-Perceived Exertion in Patients with post-COVID Fatigue and Dyspnea: A Randomized Clinical Trial. Am J Phys Med Rehabil. 2024.	pre July 2024
Çelik Z, Kafa N, Güzel NA, Köktürk N. The effects of physical activity tele-counseling intervention on physical activity, functional performance, and quality of life in post-COVID-19 conditions: a randomized controlled trial. Expert Rev Respir Med. 2024.	pre July 2024
Del Corral T, Fabero-Garrido R, Plaza-Manzano G, Fernández-de-Las-Peñas C, Navarro-Santana M, López-de-Uralde-Villanueva I. Home-based respiratory muscle training on quality of life and exercise tolerance in long-term post-COVID-19: Randomized controlled trial. Ann Phys Rehabil Med. 2023;66(1):101709.	pre July 2024

Espinoza-Bravo C, Arnal-Gómez A, Martínez-Arnau FM, Núñez-Cortés R, Hernández-Guillén D, Flor-Rufino C, et al. Effectiveness of Functional or Aerobic Exercise Combined With Breathing Techniques in Telerehabilitation for Patients With Long COVID: A Randomized Controlled Trial. Phys Ther. 2023;103(11).	pre July 2024
Lai CY, Lin CH, Chao TC, Chang CC, Huang CY, Chiang SL. Effectiveness of a 12-week telerehabilitation training in people with long COVID: A randomized controlled trial. Ann Phys Rehabil Med. 2024;67(5):101853.	pre July 2024
M K, A B, L D, P G, B D, P dT, et al. Feasibility of a Group-Based Telerehabilitation Intervention for Long COVID Management. ResearchSquare. 2022.	pre July 2024
McGregor G, Sandhu H, Bruce J, Sheehan B, McWilliams D, Yeung J, et al. Clinical effectiveness of an online supervised group physical and mental health rehabilitation programme for adults with post-covid-19 condition (REGAIN study): multicentre randomised controlled trial. Bmj. 2024;384:e076506.	pre July 2024
Okan F, Okan S, Duran Yücesoy F. Evaluating the Efficiency of Breathing Exercises via Telemedicine in Post-Covid-19 Patients: Randomized Controlled Study. Clin Nurs Res. 2022;31(5):771-81.	pre July 2024
Pleguezuelos E, Del Carmen A, Moreno E, Miravittles M, Serra M, Garnacho-Castaño M. Effects of a telerehabilitation program and detraining on cardiorespiratory fitness in patients with post-COVID-19 sequelae: A randomized controlled trial. Scandinavian journal of medicine & science in sports. 2023;34:e14543.	pre July 2024
Pleguezuelos E, Del Carmen A, Moreno E, Serra-Prat M, Serra-Payá N, Garnacho-Castaño MV. Telerehabilitation improves cardiorespiratory and muscular fitness and body composition in older people with post-COVID-19 syndrome. J Cachexia Sarcopenia Muscle. 2024.	pre July 2024
Samper-Pardo M, León-Herrera S, Oliván-Blázquez B, Méndez-López F, Domínguez-García M, Sánchez-Recio R. Effectiveness of a telerehabilitation intervention using ReCOVary APP of long COVID patients: a randomized, 3-month follow-up clinical trial. Scientific reports. 2023;13:7943.	pre July 2024
Samper-Pardo M, Oliván-Blázquez B, León-Herrera S, Sánchez-Arizcuren R, Casado-Vicente V, Sánchez-Recio R. Effectiveness of ReCOVary APP to improve the quality of life of Long COVID patients: a 6-month follow-up randomized clinical trial. 2023.	pre July 2024
Sarmiento A, Adodo R, Hodges G, Webber S, Sanchez-Ramirez D. Virtual pulmonary rehabilitation approaches in patients with post COVID syndrome: a pilot study. BMC pulmonary medicine. 2024;24:139.	pre July 2024

Stölting A, Schröder D, Müllenmeister C, Behrens GMN, Klawitter S, Klawonn F, et al. Improvement in quality of life and cognitive function in Post Covid Syndrome after online occupational therapy: results from a randomized controlled pilot study. medRxiv. 2024.	pre July 2024
Vallier JM, Simon C, Bronstein A, Dumont M, Jobic A, Paleiron N, et al. Randomized controlled trial of home-based vs. hospital-based pulmonary rehabilitation in post COVID-19 patients. Eur J Phys Rehabil Med. 2023;59(1):103-10.	pre July 2024
Abo Elyazed TI, Abd El-Hakim AAE, Saleh OI, Sonbol MMF, Eid HA, Moazen E, et al. Diaphragmatic strengthening exercises for patients with post COVID-19 condition after mild-to-moderate acute COVID-19 infection: a randomized controlled study. J Rehabil Med. 2024;56:jrm25491.	pre July 2024
Besnier F, Malo J, Mohammadi H, Clavet S, Klai C, Martin N, et al. Effects of Cardiopulmonary Rehabilitation on Cardiorespiratory Fitness and Clinical Symptom Burden in Long COVID: Results from the COVID-Rehab Randomized Controlled Trial. Am J Phys Med Rehabil. 2024.	pre July 2024
Gaudreau-Majeau F, Gagnon C, Djedaa S, Bérubé B, Malo J, Iglesies-Grau J, et al. Cardiopulmonary rehabilitation's influence on cognitive functions, psychological state, and sleep quality in long COVID-19 patients: A randomized controlled trial. Neuropsychological rehabilitation. 2024;1-17.	pre July 2024
Gomes Dos Santos EG, Vieira da Costa K, Cordeiro de Souza IT, Victor Dos Santos Felix J, Furtado Brandão CB, Michelle de Souza Fernandes V, et al. Effects of a cardiopulmonary rehabilitation protocol on functional capacity, dyspnea, fatigue, and body composition in individuals with post-COVID-19 syndrome: A randomized controlled trial. Physiother Res Int. 2024;29(2):e2086.	pre July 2024
Jimeno-Almazán A, Buendía-Romero Á, Martínez-Cava A, Franco-López F, Sánchez-Alcaraz BJ, Courel-Ibáñez J, et al. Effects of a concurrent training, respiratory muscle exercise, and self-management recommendations on recovery from post-COVID-19 conditions: the RECOVE trial. J Appl Physiol (1985). 2023;134(1):95-104.	pre July 2024
Jimeno-Almazán A, Franco-López F, Buendía-Romero Á, Martínez-Cava A, Sánchez-Agar JA, Sánchez-Alcaraz Martínez BJ, et al. Rehabilitation for post-COVID-19 condition through a supervised exercise intervention: A randomized controlled trial. Scand J Med Sci Sports. 2022;32(12):1791-801.	pre July 2024
Kaczmarczyk K, Matharu Y, Bobowik P, Gajewski J, Maciejewska-Skrendo A, Kulig K. Resistance Exercise Program Is Feasible and Effective in Improving Functional Strength in Post-COVID Survivors. Journal of clinical medicine. 2024;13:1712-.	pre July 2024

Kerling A, Beyer S, Dirks M, Scharbau M, Hennemann A, Dopfer-Jablonka A, et al. Effects of a randomized-controlled and online-supported physical activity intervention on exercise capacity, fatigue and health related quality of life in patients with post-COVID-19 syndrome. BMC sports science, medicine & rehabilitation. 2024;16:33.	pre July 2024
Kogel A, Machatschek M, Scharschmidt R, Wollny C, Lordick F, Ghanem M, et al. Physical exercise as a treatment for persisting symptoms post-COVID infection: review of ongoing studies and prospective randomized controlled training study. Clin Res Cardiol. 2023;112(11):1699-709.	pre July 2024
McNarry MA, Berg RMG, Shelley J, Hudson J, Saynor ZL, Duckers J, et al. Inspiratory muscle training enhances recovery post-COVID-19: a randomised controlled trial. Eur Respir J. 2022;60(4).	pre July 2024
Mooren J, Garbsch R, Schäfer H, Kotewitsch M, Waranski M, Teschler M, et al. Medical Rehabilitation of Patients with Post-COVID-19 Syndrome-A Comparison of Aerobic Interval and Continuous Training. Journal of clinical medicine. 2023;12:6739-.	pre July 2024
Palau P, Domínguez E, Gonzalez C, Bondía E, Albiach C, Sastre C, et al. Effect of a home-based inspiratory muscle training programme on functional capacity in postdischarged patients with long COVID: the InsCOVID trial. BMJ Open Respir Res. 2022;9(1).	pre July 2024
Pietranis KA, Izdebska WM, Kuryliszyn-Moskal A, Dakowicz A, Ciotkiewicz M, Kaniewska K, et al. Effects of Pulmonary Rehabilitation on Respiratory Function and Thickness of the Diaphragm in Patients with Post-COVID-19 Syndrome: A Randomized Clinical Trial. J Clin Med. 2024;13(2).	pre July 2024
Romanet C, Wormser J, Fels A, Lucas P, Prudat C, Sacco E, et al. Effectiveness of exercise training on the dyspnoea of individuals with long COVID: A randomised controlled multicentre trial. Ann Phys Rehabil Med. 2023;66(5):101765.	pre July 2024
Sánchez Milá Z, Rodríguez Sanz D, Martín Nieto A, Jiménez Lobo A, Ramos Hernández M, Campón Chekroun A, et al. Effects of a respiratory and neurological rehabilitation treatment plan in post Covid-19 affected university students. Randomized clinical study. Chronic Respiratory Disease. 2024;21.	pre July 2024
Sánchez-Milá Z, Abuín-Porras V, Romero-Morales C, Almazán-Polo J, Velázquez Saornil J. Effectiveness of a respiratory rehabilitation program including an inspiration training device versus traditional respiratory rehabilitation: a randomized controlled trial. PeerJ. 2023;11:e16360-e.	pre July 2024

Spiesshoefer J, Regmi B, Senol M, Jörn B, Gorol O, Elfeturi M, et al. Potential Diaphragm Muscle Weakness-related Dyspnea Persists Two Years after COVID-19 and Could Be Improved by Inspiratory Muscle Training: Results of an Observational and an Interventional Trial. Am J Respir Crit Care Med. 2024.	pre July 2024
Tryfonos A, Pourhamidi K, Jörnåker G, Engvall M, Eriksson L, Elhallos S, et al. Functional Limitations and Exercise Intolerance in Patients With Post-COVID Condition: A Randomized Crossover Clinical Trial. JAMA Netw Open. 2024;7(4):e244386.	pre July 2024
Stavrou VT, Vavougios GD, Astara K, Mysiris DS, Tsirimona G, Papayianni E, et al. The Impact of Different Exercise Modes in Fitness and Cognitive Indicators: Hybrid versus Tele-Exercise in Patients with Long Post-COVID-19 Syndrome. Brain Sci. 2024;14(7).	July 2024
Leon-Herrera S, Olivan-Blazquez B, Sanchez-Recio R, Mendez-Lopez F, Magallon-Botaya R, Sanchez-Ariscuren R. Effectiveness of an online multimodal rehabilitation program in long COVID patients: a randomized clinical trial. Arch Public Health. 2024;82(1):159.	Sept 2024
Bai B, Xu M, Zhou H, et al. Effects of aerobic training on cardiopulmonary fitness in patients with long COVID-19: a randomized controlled trial. Vol. 25. 2024:649.	Oct 2024
Cunha ACR, Silva JC, Garcês CP, et al. Online and Face-to-Face Mat Pilates Training for Long COVID-19 Patients: A Randomized Controlled Trial on Health Outcomes. Vol. 21. International journal of environmental research and public health. 2024 Oct 19.	Oct 2024
Dwiputra B, Ambari A, Triangto K, et al. The home-based breathing and chest mobility exercise improves cardiorespiratory functional capacity in long COVID with cardiovascular comorbidities: a randomized study. Vol. 24. 2024:574.	Oct 2024
Kaddoussi R, Rejeb H, Kalai A, et al. Effects of a cardiopulmonary rehabilitation programme on submaximal exercise in Tunisian patients with long-COVID19: a randomized clinical trial. Vol. 41. 2024:197-217.	Oct 2024
Maritescu A, Crisan AF, Pescaru CC, Stoicescu ER, Oancea C, Iacob D. Effectiveness of Combined Pulmonary Rehabilitation and Progressive Muscle Relaxation in Treating Long-Term COVID-19 Symptoms: A Randomized Controlled Trial. Vol. 13. Journal of clinical medicine. 2024 Oct 18.	Oct 2024
Ramírez-Vélez R, Oteiza J, Legarra-Gorgoñon G, Oscoz-Ochandorena S, García-Alonso N, García-Alonso Y, et al. Exercise training in long COVID: the EXER-COVID trial. 2024 Nov 22.	Nov 2024

Jorge, M. S. G., P. Nepomuceno, R. H. Schneider and L. M. Wibeling (2025). Eight weeks of Pilates Method improves physical fitness and sleep quality of individuals with post-COVID-19 syndrome: a randomized clinical trial blinded. 41: 238-245-undefined.	Dec 2024
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