

Studien zu Atemphysiotherapie bei Mukoviszidose

Allgemein:

Für eine Literaturrecherche bieten sich neben Fachzeitschriften viele digitale Literaturdatenbanken an, z.B.

- Pubmed 
- PEDro 
- Cochrane Library 
- Science Direct 
- Google Scholar 

Dort können Abstracts (=Zusammenfassung einer Studie mit Hintergrund, Methodik, Ergebnissen und Schlussfolgerung) oder auch Volltexte gelesen werden.

Geeignete Stichworte für eine englischsprachige Literaturrecherche sind:

- *Cystic Fibrosis*
- *(Respiratory) Physiotherapy/ (Chest) Physical Therapy/ Airway Clearance (Techniques)*

Die Stichworte können mit Operatoren wie „AND“ und „OR“ verknüpft werden, um die Trefferzahl relevanter Literatur auf die zu suchende Thematik einzugrenzen.

Die nachfolgenden Studien sind ein Auszug einer Literaturrecherche über die Datenbanken Pubmed, PEDro und Cochrane ohne Anspruch auf Vollständigkeit (Sucheingabe: „Airway Clearance“ AND „Cystic Fibrosis“).

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Cochrane Library

(=systematische Reviews, bei denen AutorInnen mehrere Studien der gleichen Thematik zusammengefasst betrachten und interpretieren)

1. Burnham P, Stanford G, Stewart R. Autogenic drainage for airway clearance in cystic fibrosis. *Cochrane Database Syst Rev.* 2021;12:CD009595.
2. Dentice R, Elkins M. Timing of dornase alfa inhalation for cystic fibrosis. *Cochrane Database Syst Rev.* 2021;3:CD007923.
3. Elkins M, Dentice R. Timing of hypertonic saline inhalation for cystic fibrosis. *Cochrane Database Syst Rev.* 2020;2:CD008816.
4. Elphick HE, Mallery G. Oxygen therapy for cystic fibrosis. *Cochrane Db Syst Rev.* 2013(7).
5. Freitas DA, Chaves GSS, Santino TA, Ribeiro CTD, Dias FAL, Guerra RO, et al. Standard (head-down tilt) versus modified (without head-down tilt) postural drainage in infants and young children with cystic fibrosis. *Cochrane Db Syst Rev.* 2018(3).
6. Heinz KD, Walsh A, Southern KW, Johnstone Z, Regan KH. Exercise versus airway clearance techniques for people with cystic fibrosis. *Cochrane Database Syst Rev.* 2022;6:CD013285.
7. Main E, Prasad A, van der Schans C. Conventional chest physiotherapy compared to other airway clearance techniques for cystic fibrosis - art. no. CD002011.pub2. *Cochrane Db Syst Rev.* 2005(1).
8. McIlwaine M, Button B, Nevitt SJ. Positive expiratory pressure physiotherapy for airway clearance in people with cystic fibrosis. *Cochrane Database Syst Rev.* 2019;2019(11).
9. McKoy NA, Wilson LM, Saldanha IJ, Odelola OA, Robinson KA. Active cycle of breathing technique for cystic fibrosis. *Cochrane Database Syst Rev.* 2016;7:CD007862.
10. Moran F, Bradley JM, Piper AJ. Non-invasive ventilation for cystic fibrosis. *Cochrane Database Syst Rev.* 2017;2:CD002769.
11. Morrison L, Milroy S. Oscillating devices for airway clearance in people with cystic fibrosis. *Cochrane Database Syst Rev.* 2020;4:CD006842.

12. Oliveira VH, Mendonca KM, Monteiro KS, Silva IS, Santino TA, Nogueira PAM. Physical therapies for postural abnormalities in people with cystic fibrosis. *Cochrane Database Syst Rev.* 2020;3:CD013018.
13. Stanford G, Ryan H, Solis-Moya A. Respiratory muscle training for cystic fibrosis. *Cochrane Database Syst Rev.* 2020;12:CD006112.
14. Wark P, McDonald VM. Nebulised hypertonic saline for cystic fibrosis. *Cochrane Db Syst Rev.* 2018(9).
15. Warnock L, Gates A. Chest physiotherapy compared to no chest physiotherapy for cystic fibrosis. *Cochrane Database Syst Rev.* 2015(12):CD001401.
16. Wilson LM, Morrison L, Robinson KA. Airway clearance techniques for cystic fibrosis: an overview of Cochrane systematic reviews. *Cochrane Database Syst Rev.* 2019;1:CD011231.

Pubmed und PEDro

(=vorrangig Interventions- und Beobachtungsstudien, aber auch Literaturzusammenfassungen und internationale Empfehlungen)

Um einen Überblick erhalten zu können, wird nur ein Auszug von 125 Studien, geordnet nach dem Jahr der Veröffentlichung, gezeigt:

1. Ward N, Ward B, Stiller K, Kenyon A, Holland AE. Development of a device to measure adherence and pressure characteristics of positive expiratory pressure therapies used by adults with cystic fibrosis. *Physiother Theor Pr.* 2022;38(10):1469-77.
2. Vandervoort B, De Beuckeleer D, Huenaerts E, Schulte M, Vermeulen F, Proesmans M, et al. The Short Term Influence of Chest Physiotherapy on Lung Function Parameters in Children With Cystic Fibrosis and Primary Ciliary Dyskinesia. *Front Pediatr.* 2022;10:858410.
3. Trimble A, Zeman K, Wu J, Ceppe A, Bennett W, Donaldson S. Effect of airway clearance therapies on mucociliary clearance in adults with cystic fibrosis: A randomized controlled trial. *PLoS One.* 2022;17(5):e0268622.
4. Schmidt H, Toth M, Kappler-Schorn C, Siebeneich U, Bode SFN, Fabricius D. Short-term effects of a novel bronchial drainage device: A pilot cohort study in subjects with cystic fibrosis. *Health Sci Rep.* 2022;5(5):e812.
5. Saynor ZL, Cunningham S, Morrison L, Main E, Vogiatzis I, Reid S, et al. Exercise as airway clearance therapy (ExACT) in cystic fibrosis: a UK-based e-Delphi survey of patients, caregivers and health professionals. *Thorax.* 2022.
6. Rowbotham NJ, Daniels TE. Airway clearance and exercise for people with cystic fibrosis: Balancing longevity with life. *Pediatr Pulm.* 2022;57:S50-S9.
7. Rocamora-Perez P, Benzo-Iglesias MJ, Valverde-Martinez MLA, Garcia-Luengo AV, Aguilar-Parra JM, Trigueros R, et al. Effectiveness of positive expiratory pressure on patients over 16 years of age with cystic fibrosis: systematic review and meta-analysis. *Ther Adv Respir Dis.* 2022;16:17534666221089467.

8. Raywood E, Shannon H, Filipow N, Tanriver G, Stanojevic S, Kapoor K, et al. Quantity and quality of airway clearance in children and young people with cystic fibrosis. *J Cyst Fibros.* 2022.
9. Radtke T. Role of physical activity and airway clearance therapy in cystic fibrosis: moving forward in a rapidly changing landscape. *Thorax.* 2022.
10. Israeli T, Eisenstadt I, Shoseyov D, Armoni S, Gileles-Hillel A, Cremisi G, et al. Respiratory physiotherapy in patients with cystic fibrosis and upper limb deep vein thrombosis. *Pediatr Pulmonol.* 2022;57(6):1552-4.
11. Gursli S, Quittner A, Jahnsen RB, Skrede B, Stuge B, Bakkeheim E. Airway clearance physiotherapy and health-related quality of life in cystic fibrosis. *PLoS One.* 2022;17(10):e0276310.
12. Bokov P, Gerardin M, Brialix G, Da Costa Noble E, Juif R, Foucher AV, et al. Beneficial short-term effect of autogenic drainage on peripheral resistance in childhood cystic fibrosis disease. *BMC Pulm Med.* 2022;22(1):241.
13. Almulhem M, Harnett N, Graham S, Haq I, Visram S, Ward C, et al. Exploring the impact of elexacaftor-tezacaftor-ivacaftor treatment on opinions regarding airway clearance techniques and nebulisers: TEMPO a qualitative study in children with cystic fibrosis, their families and healthcare professionals. *BMJ Open Respir Res.* 2022;9(1).
14. Abrami M, Maschio M, Conese M, Confalonieri M, Salton F, Gerin F, et al. Effect of chest physiotherapy on cystic fibrosis sputum nanostructure: an experimental and theoretical approach. *Drug Deliv Transl Res.* 2022;12(8):1943-58.
15. Ward N, Morrow S, Stiller K, Holland AE. Exercise as a substitute for traditional airway clearance in cystic fibrosis: a systematic review. *Thorax.* 2021;76(8):763-71.
16. Walicka-Serzysko K, Postek M, Jeneralska N, Cichocka A, Milczewska J, Sands D. The effects of the addition of a new airway clearance device to chest physiotherapy in children with cystic fibrosis pulmonary exacerbations. *J Mother Child.* 2021;24(3):16-24.
17. O'Sullivan KJ, Power V, Linnane B, McGrath D, Mulligan M, White R, et al. A short-term evaluation of a prototype disposable Oscillating Positive

Expiratory Pressure (OPEP) device in a cohort of children with cystic fibrosis. *BMC Pulm Med.* 2021;21(1):158.

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22. Dwyer T. Huff and puff of exercise for airway clearance in cystic fibrosis: how clear is the evidence? *Thorax.* 2021.

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A survey of patients and healthcare professionals. *Journal of Cystic Fibrosis*. 2020;19(4):e19-e24.

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