

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“).

Stand: 25.02.2025 (verfasst von Dr. Tina Büttner)

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, Mallory 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. Jones M, Moffatt F, Harvey A, Ryan JM. Interventions for improving adherence to airway clearance treatment and exercise in people with cystic fibrosis. *Cochrane Database of Systematic Reviews* 2023, Issue 7. Art. No.: CD013610. DOI: 10.1002/14651858.CD013610.pub2.
8. Main E, Rand S. Conventional chest physiotherapy compared to other airway clearance techniques for cystic fibrosis. *Cochrane Database Syst Rev.* 2023 May 5;5(5):CD002011.
9. 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).
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, Morrison L, Brown C. Nebuliser systems for drug delivery in cystic fibrosis. *Cochrane Database of Systematic Reviews* 2023, Issue 11. Art. No.: CD007639. DOI: 10.1002/14651858.CD007639.pub3.
14. Stanford G, Ryan H, Solis-Moya A. Respiratory muscle training for cystic fibrosis. *Cochrane Database Syst Rev.* 2020;12:CD006112.
15. Wark P, McDonald VM, Smith S. Nebulised hypertonic saline for cystic fibrosis. *Cochrane Database Syst Rev.* 2023 Jun 14;6(6):CD001506.
16. Warnock L, Gates A. Airway clearance techniques compared to no airway clearance techniques for cystic fibrosis. *Cochrane Database Syst Rev.* 2023 Apr 12;4(4): CD001401.
17. 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.
18. Wilson LM, Saldanha IJ, Robinson KA. Active cycle of breathing technique for cystic fibrosis. *Cochrane Database Syst Rev.* 2023 Feb 2;2(2):CD007862. doi: CD007862.

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. Blardone C, Gambazza S, Mariani A, Galgani R, Brivio A, Nobili RM, Rizza C, Tutino AL, Gramegna A, Daccò V, Contarini M, Blasi F, Laquintana D. Perceived burden of respiratory physiotherapy in people with cystic fibrosis taking elexacaftor-tezacaftor-ivacaftor combination: a 1-year observational study. *Ther Adv Respir Dis.* 2024 Jan-Dec;18:17534666241235054. doi: 10.1177/17534666241235054. PMID: 38554035; PMCID: PMC10981859.
2. de Macedo JRFF, Aubriot AS, Reyhler G, Penelle M, Gohy S, Poncin W. The intermittent intrapulmonary deflation technique for airway clearance in patients with cystic fibrosis: A randomized trial. *Respir Med Res.* 2024 Nov;86:101094. doi: 10.1016/j.resmer.2024.101094. Epub 2024 Feb 29. PMID: 38843595.
3. Marin A, Chiaradia VC, Dobre M, Brateanu A, Baltatu OC, Campos LA. High-frequency chest wall oscillation devices: An umbrella review and bibliometric analysis. *Comput Biol Med.* 2024 Nov;182:109135. doi: 10.1016/j.combiomed.2024.109135. Epub 2024 Sep 18. PMID: 39288556.
4. Agarwal S, Jat KR, Gupta S, Sankar J, Lodha R, Kabra SK. Video-based direct observation physiotherapy in children with cystic fibrosis: a randomised controlled trial. *Eur Respir J.* 2024 Jul 25;64(1):2400826. doi: 10.1183/13993003.00826-2024. PMID: 38811042.

5. Gambazza S, Mariani A, Guarise R, Ferrari B, Carta F, Brivio A, Bizzarri S, Castellani C, Colombo C, Laquintana D. Short-term effects of positive expiratory pressure mask on ventilation inhomogeneity in children with cystic fibrosis: A randomized, sham-controlled crossover study. *Pediatr Pulmonol.* 2024 May;59(5):1354-1363. doi: 10.1002/ppul.26915. Epub 2024 Feb 16. PMID: 38362833.
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10. Watson K, Koenig E, Bannister A, Mayne V, Jacques A, Sawyer A, Wood J. Modified forced expiration technique using expiratory resistance in adults with cystic fibrosis. *Clin Respir J.* 2023 Oct 4:e13708.

11. O'Sullivan KJ, Dunne CP, Linnane B, McGrath D, O'Sullivan L. Design and initial testing of a novel disposable oscillating positive expiratory pressure device. *Ir J Med Sci.* 2023 Oct;192(5):2291-2299.
12. 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 Sep 12;5(5):e812.
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- fibrosis: a UK-based e-Delphi survey of patients, caregivers and health professionals. *Thorax*. 2023 Jan;78(1):88-91.
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