

**41 Wissenschaftliche Studien die eine Myokarditis oder Perikarditis zeitnah nach einer oder mehreren Impfungen gegen SARS-CoV-2 belegen**

Siehe die Quellen 1 - 41, welche für Un- und Geimpfte wichtige Lektüre ist und wie im Titel beschrieben ein hohes Risiko von Myokarditis oder Perikarditis nach einer Impfung gezeigt.

Dabei ist wichtig zu wissen, dass die Sterblichkeit von Menschen die in ihrer Vergangenheit Myokarditis oder Perikarditis hatten signifikant erhöht ist [42-44].

Besonders Geimpfte wurden weit über 16 Monate hinaus geblendet und durch die tägliche, mediale Berichterstattung ferngesteuert zur Nadel getrieben, dem angeblichen Schutz vor einem schweren Covid-19-Krankheitsverlauf steht ein hohes Nebenwirkungsrisiko, welches neben anderen Krankheiten Myokarditis oder Perikarditis mit einschließt [1-41], gegenüber.

Ob man sich trotz milder Varianten wie Omikron impfen lassen sollte, steht jedem frei, für mich überwiegt alleine durch die Quellen [1-44] das Risiko der Impfung gegenüber einem schweren Krankheitsverlauf durch SARS-CoV-2. In Österreich gab es im Jahr 2022 in Kalenderwoche 10 alleine 303.194 Neuinfektionen [45] und am 15.03.22 waren 200 Intensivbetten [46] durch Covid-19 belegt. SARS-CoV-2 und Omikron ist keine Gefahr für das Gesundheitssystem, die Impfungen dagegen sind unnötig. In Österreich war das Gesundheitssystem nie an der Auslastungsgrenze [45,46], auch nicht bei der Alpha und Delta Variante.

Quellen:

[1] William W. King, Matthew R. Petersen, Ralph M. Matar, Jeffery B. Budweg, Lyda Cuervo Pardo, and John W. Petersen. Myocarditis after mRNA vaccination against SARS-CoV-2, a case series. American Heart Journal Plus: Cardiology Research and Practice 8: 100042, 09.08.2021. Elsevier B.V. <https://doi.org/10.1016/j.ahjo.2021.100042>.

[2] Jay Montgomery, Margaret Ryan, Renata Engler, Donna Hoffman, Bruce McClenathan, Limone Collins, David Loran, David Hrcir, Kelsie Herring, Michael Platzer, Nehkonti Adams, Aliye Sanou, Leslie T. Cooper Jr. Myocarditis after immunization with COVID-19 mRNA vaccines in members of the US. JAMA Cardiology 6(10): 1202 – 1206, 29.06.2021. American Medical Association. <https://doi.org/10.1001/jamacardio.2021.2833>.

[3] Audrey Dionne, Francesca Sperotto, Stephanie Chamber, Annette L. Baker, Andrew J. Powell, Ashwin Prakash, Daniel A. Castellanos, Susan F. Saleeb, Sarah D. de Ferranti, Jane W. Newburger, and Kevin G. Friedman.

Association of myocarditis with the BNT162b2 messenger RNA COVID-19 vaccine in a case series of children. *JAMA Cardiology* 6(12): 1446 – 1450, 10.08.2021. American Medical Association. <https://doi.org/10.1001/jamacardio.2021.3471>.

[4] Matthew E. Oster, David K. Shay, John R. Su, Julianne Gee, C. Buddy Creech, Karen R. Broder, Kathryn Edwards, Jonathan H. Soslow, Jeffrey M. Dendy, Elizabeth Schlaudecker, Sean M. Lang, Elizabeth D. Barnett, Frederick L. Ruberg, Michael J. Smith, M. Jay Campbell, Renato D. Lopes, Laurence S. Sperling, Jane A. Baumblatt, Deborah L. Thompson, Paige L. Marquez, Penelope Strid, Jared Woo, River Pugsley, Sarah Reagan-Steiner, Frank DeStefano, and Tom T. Shimabukuro. Myocarditis Cases Reported After mRNA-Based COVID-19 Vaccination in the US From December 2020 to August 2021. *JAMA* 327(4): 331 – 340, 25.01.2022. American Medical Association. <https://doi.org/10.1001/jama.2021.24110>

[5] Mayme Marshall, Ian D Ferguson, Paul Lewis, Preeti Jaggi, Christina Gagliardo, James Stewart Collins, Robin Shaughnessy, Rachel Caron, Cristina Fuss, Kathleen Jo E. Corbin, Leonard Emuren, Erin Faherty, E. Kevin Hall, Cecilia Di Pentima, Matthew E. Oster, Elijah Paintsil, Saira Siddiqui, Donna M. Timchak, Judith A. Guzman-Cottrill. Symptomatic Acute Myocarditis in 7 Adolescents After Pfizer-BioNTech COVID-19 Vaccination. *Pediatrics* 2021 148(3): e2021052478, 01.10.2021. American Academy of Pediatrics. <https://doi.org/10.1542/peds.2021-052478>

[6] Adriana Luk, Brian Clarke, Nagib Dahdah, Anique Ducharme, Andrew Krahn, Brian McCrindle, Trent Mizzi, Monika Naus, Jacob A. Udell, Sean Virani, Shelley Zieroth, and Michael McDonald. Myocarditis and Pericarditis After COVID-19 mRNA Vaccination: Practical Considerations for Care Providers. *Canadian Journal of Cardiology* 37(10): 1629 – 1634, 08.08.2021. Elsevier Inc. <https://dx.doi.org/10.1016%2Fj.cjca.2021.08.001>

[7] Salvatore Pepe, Ann T. Gregory, and Robert Denniss. Myocarditis, Pericarditis and Cardiomyopathy After COVID-19 Vaccination. *Heart, Lung and Circulation* 30(10): 1425 - 1429, 31.07.21. Elsevier Inc. <https://doi.org/10.1016/j.hlc.2021.07.011>

[8] Biykem Bozkurt, Ishan Kamat, Peter J. Hotez. Myocarditis With COVID-19 mRNA Vaccines. *Circulation* 144(6): 471 - 484, 10.08.2021. American Heart Association Inc. <https://doi.org/10.1161/circulationaha.121.056135>

[9] Saif Abu Mouch , Ariel Roguin, Elias Hellou, Amorina Ishai, Uri Shoshan, Lamis Mahamid, Marwan Zoabi, Marina Aisman, Nimrod Goldschmid, and Noa Berar Yanay. Myocarditis following COVID-19 mRNA vaccination. *Vaccine* 39(29): 3790 - 3793, 29.06.2021. Elsevier Ltd. <https://doi.org/10.1016/j.vaccine.2021.05.087>

[10] Carolyn M. Rosner, Leonard Genovese, Behnam N. Tehrani, Melany Atkins, Hooman Bakhshi, Saquib Chaudhri, Abdulla A. Damluji, James A. de Lemos, Shashank S. Desai, Abbas Emaminia, Michael Casey Flanagan, Amit Khera, Alireza Maghsoudi, Girum Mekonnen, Alagarraju Muthukumar, Ibrahim M. Saeed, Matthew W. Sherwood, Shashank S. Sinha, Christopher M

O'Connor, and Christopher R. de Filippi. Myocarditis Temporally Associated With COVID-19 Vaccination. *Circulation* 144(6): 502 - 505, 10.08.2021. American Heart Association, Inc. <https://doi.org/10.1161/circulationaha.121.055891>

[11] Supriya S. Jain, Jeremy M. Steele, Brian Fonseca, Sihong Huang, Sanket Shah, Shiraz A. Maskatia, Sujatha Buddhé, Nilanjana Misra, Preeti Ramachandran, Lasya Gaur, Parham Eshtehardi, Shafkat Anwar, Neeru Kaushik, Frank Han, Nita Ray Chaudhuri, and Lars Grosse-Wortmann. COVID-19 Vaccination-Associated Myocarditis in Adolescents. *Pediatrics* 148(5): e2021053427, 01.11.2021. American Academy of Pediatrics. <https://doi.org/10.1542/peds.2021-053427>

[12] Javier Bautista García, Pedro Peña Ortega, José Antonio Bonilla Fernández, Aridane Cárdenes León, Luis Ramírez Burgos, and Eduardo Caballero Dorta. Acute myocarditis after administration of the BNT162b2 vaccine against COVID-19. *Revista Española de Cardiología (English Edition)* 74(9): 812 - 814, 01.10.2021. Elsevier España, S.L.U. <https://doi.org/10.1016/j.rec.2021.04.005>

[13] Imran Sulemankhil, Mohammad Abdelrahman, and Smita I. Negi. Temporal association between COVID-19 vaccine Ad26.COV2.S and acute myocarditis: casereport and review of the literature. *Cardiovascular Revascularization Medicine* 21: 1553 - 8389, 16.08.2021. Elsevier Inc. <https://doi.org/10.1016/j.carrev.2021.08.012>

[14] Mahmoud Nassar, Nso Nso, Carlos Gonzalez, Sofia Lakhdar, Mohsen Alshamam, Mohammed Elshafey, Yousef Abdalazeem, Andrew Nyein, Benjamin Punzalan, Richard Jesse Durrance, Mostafa Alfishawy, Sanjiv Bakshi, and Vincent Rizzo. COVID-19 vaccine-induced myocarditis: Case report with literature review. *Diabetology and Metabolic Syndrome* 15(5): 102205, 01.10.2021. Elsevier Ltd. <https://dx.doi.org/10.1016%2Fj.dsx.2021.102205>

[15] Kirsten E. Shaw, João L. Cavalcante, B. Kelly Han, and Mario Gössl. Possible Association Between COVID-19 Vaccine and Myocarditis: Clinical and CMR Findings. *JACC Cardiovascular Imaging* 14(9): 1856 - 1861, 01.10.2021. American College of Cardiology Foundation, Elsevier. <https://doi.org/10.1016/j.jcmg.2021.06.002>

[16] Prashant K. Minocha, Donna Better, Rakesh K. Singh, and Tasneem Hoque. Recurrence of Acute Myocarditis Temporally Associated with Receipt of the mRNA Coronavirus Disease 2019 (COVID-19) Vaccine in a Male Adolescent. *The Journal of Pediatrics* 238: 321 - 323, 01.11.2021. Elsevier Inc. <https://doi.org/10.1016/j.jpeds.2021.06.035>

[17] Antonio Abbate, Josh Gavin, Nima Madanchi, Christin Kim, Pranav R. Shah, Katherine Klein, Julie Boatman, Charlotte Roberts, Seema Patel, and Stamatina Danielides. Fulminant myocarditis and systemic hyperinflammation temporally associated with BNT162b2 COVID-19 mRNA vaccination in two patients. *International Journal of Cardiology* 340: 119 - 121, 01.10.2021. Elsevier Inc. <https://doi.org/10.1016/j.ijcard.2021.08.018>

- [18] Mohammed A. Miqdad, Hamze Nasser, Abdullah Alshehri, and Abdul Rahman Mourad. Acute Myocarditis Following the Administration of the Second BNT162b2 COVID-19 Vaccine Dose. *Cureus* 13(10):e18880, 18.10.2021. Cureus, Inc. <https://doi.org/10.7759/cureus.18880>
- [19] Prashant D. Tailor, Aoife M. Feighery, Bassim El-Sabawi, and Abhiram Prasad. Case report: acute myocarditis following the second dose of mRNA-1273 SARS-CoV-2 vaccine. *European Heart Journal Case Reports* 5(8):ytab319, 04.08.2021. European Society of Cardiology. <https://doi.org/10.1093/ehjcr/ytab319>
- [20] Kevin Watkins, Gregory Griffin, Kristen Septaric, and Erin L. Simon. Myocarditis following vaccination with BNT162b2 in a healthy male. *The American Journal of Emergency Medicine* 50: 815.e1 - 815.e2, 01.12.2021. Elsevier Inc. <https://doi.org/10.1016/j.ajem.2021.06.051>
- [21] Anna Patrignani, Nicolò Schicchi, Francesca Calcagnoli, Elena Falchetti, Nino Ciampani, Giulio Argalia, and Antonio Mariani. Acute myocarditis following Comirnaty vaccination in a healthy man with previous SARS-CoV-2 infection. *Radiology Case Reports* 16(11): 3321 – 3325, 01.11.2021. Elsevier Inc. <https://dx.doi.org/10.1016%2Fj.radcr.2021.07.082>
- [22] Almudena Ramírez-García, Sara Lozano Jiménez, Ignacio Darnaude Ximénez, Alberto Gil Cacho, Ramón Aguado-Noya, and Javier Segovia Cubero. Pericarditis after administration of BNT162b2 mRNA COVID-19 mRNA vaccine. *Revista Española de Cardiología (English Edition)* 74(12): 1120 - 1122, 01.12.2021. Elsevier España, S.L.U. <https://doi.org/10.1016/j.rec.2021.07.005>
- [23] Tien Dung Nguyen, Gerhard Mall, Julian Georg Westphal, Oliver Weingärtner, Sven Möbius-Winkler, and Paul Christian Schulze. Acute myocarditis after vaccination with SARS-CoV-2 mRNA-1273 mRNA. *ESC Heart Failure* 8(6): 4710 - 4714, 01.12.2021. John Wiley and Sons, Inc. <https://doi.org/10.1002/ehf2.13613>
- [24] Temporal relationship between the second dose of BNT162b2 mRNA Covid-19 vaccine and cardiac involvement in a patient with previous SARS-CoV-2 infection. *IJC Heart & Vasculature* 34: 100774, 31.05.2021. Elsevier. <https://dx.doi.org/10.1016%2Fj.ijcha.2021.100774>
- [25] Bibhuti B. Das, Utkarsh Kohli, Preeti Ramachandran, Hoang H. Nguyen, Gerald Greil, Tarique Hussain, Animesh Tandon, Colin Kane, Sravani Avula, Chioma Duru, Sannya Hede, Kavita Sharma, Devyani Chowdhury, Sunil Patel, Christopher Mercer, Nita Ray Chaudhuri, Bhavi Patel, Jocelyn Y. Ang, Basim Asmar, Joselito Sanchez, and Danyal Khan. Myopericarditis after messenger RNA Coronavirus Disease 2019 Vaccination in Adolescents 12 to 18 Years of Age. *The Journal of Pediatrics* 238: 26 - 32, 01.11.2021. Elsevier Inc. <https://doi.org/10.1016/j.jpeds.2021.07.044>
- [26] John B. Dickey, Elisabeth Albert, Mai Badr, Kristin M. Laraja, Lauren M. Sena, David S. Gerson, Jason E. Saucedo, Waqas Qureshi, and Gerard P. Aurigemma. A series of patients with myocarditis after vaccination against SARS-CoV-2 with mRNA-1279 and BNT162b2. *JACC Cardiovasc Imaging*

14(9): 1862 - 1863, 01.09.2021. Elsevier. <https://doi.org/10.1016/j.jcmg.2021.06.003>

[27] Biykem Bozkurt, Ishan Kamat, and Peter J. Hotez. Myocarditis With COVID-19 mRNA Vaccines. *Circulation* 144(6):471-484, 10.08.2021. American Heart Association, Inc. <https://doi.org/10.1161/circulationaha.121.056135>

[28] Balraj Singh, Parminder Kaur, Leon Cedeno, Taulant Brahim, Prem Patel, Hartaj Virk, Fayez Shamoon, and Manesh Bikkina. COVID-19 mRNA Vaccine and Myocarditis. *European Journal of Case Reports in Internal Medicine* 8(6): 002681, 14.06.2021. SMC Media srl. [https://dx.doi.org/10.12890%2F2021\\_002681](https://dx.doi.org/10.12890%2F2021_002681)

[29] Stephane Heymans and Leslie T. Cooper. Myocarditis after COVID-19 mRNA vaccination: clinical observations and potential mechanisms. *Nature Reviews Cardiology* 19(2): 75 – 77, 09.12.2021. Springer Nature Limited. <https://dx.doi.org/10.1038%2Fs41569-021-00662-w>

[30] Mahesh K. Vidula, Marietta Ambrose, Helene Glassberg, Neel Chokshi, Tiffany Chen, Victor A. Ferrari, and Yuchi Han. Myocarditis and Other Cardiovascular Complications of the mRNA-Based COVID-19 Vaccines. *Cureus* 13(6): e15576, 10.06.2021. Cureus Inc. <https://doi.org/10.7759/cureus.15576>

[31] Matthew E. Oster, David K. Shay, John R. Su, Julianne Gee, C. Buddy Creech, Karen R. Broder, Kathryn Edwards, Jonathan H. Soslow, Jeffrey M. Dendy, Elizabeth Schlaudecker, Sean M. Lang, Elizabeth D. Barnett, Frederick L. Ruberg, Michael J. Smith, M. Jay Campbell, Renato D. Lopes, Laurence S. Sperling, Jane A. Baumbblatt, Deborah L. Thompson, Paige L. Marquez, Penelope Strid, Jared Woo, River Pugsley, Sarah Reagan-Steiner, Frank DeStefano, and Tom T. Shimabukuro. Myocarditis Cases Reported After mRNA-Based COVID-19 Vaccination in the US From December 2020 to August 2021. *JAMA* 327(4): 331 - 340, 25.01.2022. American Medical Association. <https://doi.org/10.1001/jama.2021.24110>

[32] Salvatore Pepe, Ann T. Gregory, and A. Robert Denniss. Myocarditis, Pericarditis and Cardiomyopathy After COVID-19 Vaccination. *Heart Lung Circulation* 30(10): 1425 – 1429, 31.06.2021. Australian and New Zealand Society of Cardiac and Thoracic Surgeons (ANZSCTS) and the Cardiac Society of Australia and New Zealand (CSANZ). Published by Elsevier B.V. <https://dx.doi.org/10.1016%2Fj.hlc.2021.07.011>

[33] Jay Montgomery, Margaret Ryan, Renata Engler, Donna Hoffman, Bruce McClenathan, Limone Collins, David Loran, David Hrcir, Kelsie Herring, Michael Platzer, Nehkonti Adams, Aliye Sanou, and Leslie T. Cooper Jr. Myocarditis Following Immunization With mRNA COVID-19 Vaccines in Members of the US Military. *JAMA Cardiology* 6(10): 1202 - 1206, 01.10.2021. American Medical Association. <https://doi.org/10.1001/jamacardio.2021.2833>

[34] Audrey Dionne, Francesca Sperotto, Stephanie Chamberlain, Annette L. Baker, Andrew J. Powell, Ashwin Prakash, Daniel A. Castellanos, Susan F.

Saleeb, Sarah D. de Ferranti, Jane W. Newburger, and Kevin G. Friedman. Association of Myocarditis With BNT162b2 Messenger RNA COVID-19 Vaccine in a Case Series of Children. *JAMA Cardiology* 6(12):1446-1450, 01.12.2021. American Medical Association. <https://doi.org/10.1001/jamacardio.2021.3471>

[35] Ioanna Istampoulouoglou, Georgios Dimitriou, Selina Späni, Andreas Christ, Barbara Zimmermanns, Sarah Koechlin, Oliver Stoeckmann, Clemens Winterhalder, David Marono, Valeriu Toma, and Anne B. Leuppi-Taegtmeier. Myocarditis and pericarditis in association with COVID-19 mRNA-vaccination: cases from a regional pharmacovigilance centre. *Global Cardiology Science and Practice* 2021(3): e202118, 30.10.2021. Magdi Yacoub Institute. <https://dx.doi.org/10.21542%2Fgcs.2021.18>

[36] David K. Shay, Tom T. Shimabukuro, and Frank DeStefano. Myocarditis Occurring After Immunization With mRNA-Based COVID-19 Vaccines. *JAMA Cardiology* 6(10): 1115 - 1117, 01.10.2021. American Medical Association. <https://doi.org/10.1001/jamacardio.2021.2821>

[37] Jia Hong Chen, Ifeanyi A. Ikwuanusi, Veera Jayasree Latha Bommu, Vraj Patel, Harpreet Aujla, Vishrut Kaushik, and Pramil Cheriya. COVID-19 Vaccine-Related Myocarditis: A Descriptive Study of 40 Case Reports. *Cureus* 14(1): e21740, 30.01.2022. Cureus Inc. <https://doi.org/10.7759/cureus.21740>

[38] George A. Diaz, Guilford T. Parsons, Sara K. Gering, Audrey R. Meier, Ian V. Hutchinson, and Ari Robicsek. Myocarditis and Pericarditis After Vaccination for COVID-19. *JAMA* 326(12): 1210 - 1212, 04.08.2021. American Medical Association. <https://doi.org/10.1001/jama.2021.13443>

[39] Jenna Schauer, Sujatha Buddhé, Jessica Colyer, Eyal Sagiv, Yuk Law, Sathish Mallenahalli Chikkabyrappa, and Michael A. Portman. Myopericarditis After the Pfizer Messenger Ribonucleic Acid Coronavirus Disease Vaccine in Adolescents. *Journal of Pediatrics* 238: 317 - 320, 01.11.2021. Elsevier Inc. <https://doi.org/10.1016/j.jpeds.2021.06.083>

[40] Paolo Cimaglia, Paolo Tolomeo, and Claudio Rapezzi. Acute myocarditis after SARS-CoV-2 vaccination in a 24-year-old man. *Revista Portuguesa de Cardiologia* 41(1): 71 - 72, 01.01.2022. Elsevier España, S.L.U. <https://doi.org/10.1016/j.repc.2021.07.005>

[41] Ammar A. Hasnie, Usman A. Hasnie, Nirav Patel, Muhammad U. Aziz, Min Xie, Steven G. Lloyd, and Sumanth D. Prabhu. Perimyocarditis following first dose of the mRNA-1273 SARS-CoV-2 (Moderna) vaccine in a healthy young male: a case report. *BMC Cardiovascular Disorders* 21, 04.08.2021. BioMed Central Ltd. <https://doi.org/10.1186/s12872-021-02183-3>

[42] Simon Greulich, Andreas Seitz, Karin A. L. Müller, Stefan Grün, Peter Ong, Nawid Ebadi, Klaus Peter Kreisselmeier, Peter Seizer, Raffi Bekeredjian, Carolin Zwadlo, Christoph Gräni, Karin Klingel, Meinrad Gawaz, Udo Sechtem, Heiko Mahrholdt. Predictors of Mortality in Patients With Biopsy-Proven Viral Myocarditis: 10-Year Outcome Data. *Journal of the*

American Heart Association 9(16): e015351, 18.08.2020. American Heart Association, Inc. <https://doi.org/10.1161/jaha.119.015351>

[43] Muzhda Ghanizada, Søren L. Kristensen, Henning BundgaardORCID Icon, Kasper Rossing, Flora Sigvardt, Christian Madelaire, Gunnar H. Gislason, Morten Schou, Morten L. Hansen, and Finn Gustafsson. Long-term prognosis following hospitalization for acute myocarditis – a matched nationwide cohort study. Scandinavian Cardiovascular Journal 55(5): 264 - 269, 23.03.2021. Informa UK Limited. <https://doi.org/10.1080/14017431.2021.1900596>

[44] Stefan Grün, Julia Schumm, Simon Greulich, Anja Wagner, Steffen Schneider, Oiver Bruder, Eva-Maria Kispert, Stephan Hill, Peter Ong, Karin Klingel, Reinhardt Kandolf, Udo Sechtem, and Heiko Mahrholdt. Long-Term Follow-Up of Biopsy-Proven Viral Myocarditis: Predictors of Mortality and Incomplete Recovery. Journal of the American College of Cardiology 59(18): 1604 - 1615, 01.05.2012. Elsevier B.V. <https://doi.org/10.1016/j.jacc.2012.01.007>

[45] Österreichische Agentur für Gesundheit und Ernährungssicherheit GmbH (AGES). AGES Dashboard COVID19, Datenstand des Epidemiologischen Meldesystems Zeitraum 27.02.2020 bis 14.03.2022 00:00:00, Aktuelle Lage. <https://web.archive.org/web/20220314185650/https://covid19-dashboard.ages.at/>. Zugriffsdatum: 15.03.22.

[46] Österreichische Agentur für Gesundheit und Ernährungssicherheit GmbH (AGES). AGES Dashboard COVID19, Datenstand des Epidemiologischen Meldesystems Zeitraum 27.02.2020 bis 14.03.2022 00:00:00, Hospitalisierungen. <https://web.archive.org/web/20220314185650/https://covid19-dashboard.ages.at/>. Zugriffsdatum: 15.03.22.

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Dipl.-Ing. Manuel T. Schrempf