CYSTIC FIBROSIS & CANCER AWARENESS

AS LIFE EXPECTANCY FOR THOSE WITH CYSTIC FIBROSIS (CF) INCREASES-LARGELY DUE TO HIGHLY EFFECTIVE MODULATOR THERAPIES-CANCER DIAGNOSES ARE BECOMING MORE COMMON.



Cancer as the primary cause of **CF-related** deaths in 2023 '



Increase of cancer among nontransplanted people with CF between 2006-2017²



Median time between transplant & the first incidence of cancer²

RISK FACTORS



Undergoing a transplant, which increases immunosuppression



CF-related diabetes, which causes metabolic abnormalities

Mutations to the CFTR gene, which is known to be a tumor suppressor. Note: this includes CF carriers



Chronic inflammation, which can increase tumor cell survival and proliferation

Early detection is key!

Cancer has been shown to peak at a younger age among people with CF than the general population.

Cancers found during screening are typically earlier stage & more likely to be curable.

Support and Resources

A diagnosis of cancer is not one you have to face alone. Visit <u>www.cfri.org/cancer-and-cf</u> for more information about psychosocial support programs, counseling, and educational resources.

CANCERS THAT MAY BE MORE PREVALENT AMONG PEOPLE WITH CF

BASTROINTENSTINAI

Colorectal, pancreatic & liver cancers are particularly common.

People with CF are 5-10 times more likely to develop colon cancer than the general population.³

- Despite
- estrogen's
- protective effects
- on lung function and CF progression, it also promotes the formation of new blood vessels, which promotes tumor growth.⁴

Bronchial gland RESPIRATOR carcinoma is a lung cancer

- subtype more
- common among people with CF. Frequent
- infections from pseudomonas aeruginosa may contribute to this increase.⁴

Individuals post-transplant are at a higher risk of developing HPV, which can progress into cervical cancer. A 10-fold higher risk in people post-transplant has been documented. ⁵

References

- 2. Rousset-Jablonski C, Dalon F, Reynaud O, et al. Cancer Incidence and Prevalence in Cystic Fibrosis Patients With and Without a Lung Transplant in France. Front Public Health. 2022;10:1043691. Published 2022 Nov 22. doi:10.3389/fpubl.2022.1043691
- Hadjilladis D, Khoruts A, Zauber AG, et al. Cystic Fibrosis Colorectal Cancer Screening Consensus Recommendations. Gastroenterology. 2018;154(3):736-745.e14. doi:10.1053/j.gastro.2017.12.012
 Parisi GF, Papale M, Pecora G, et al. Cystic Fibrosis and Cancer: Unraveling the Complex Role of CFTR Gene in Cancer Susceptibility. Cancers (Basel). 2023;15(17):4244. Published 2023 Aug 24. doi:10.3390/cancers15174244
 Thornton C, Somayaji R, Chu A, et al. Human papillomavirus (HPV) and cervical dysplasia in adult female cystic fibrosis (CF) lung transplant recipients. Thorax 2022;77:625-627.

^{1.} Cystic Fibrosis Foundation Patient Registry 2023 Annual Data Report Bethesda, Maryland ©2024 Cystic Fibrosis Foundation