

Pancreatic Cancer Causes, Risk Factors, and Prevention

Learn about the risk factors for pancreatic cancer and what you might be able to do to help lower your risk.

Risk Factors

A risk factor is anything.t 1 7.ng ET BT 1 00gcg /GSr7e able to dodcht be of qrm9r2 484.09 Tm 0 0 0

Pancreatic Cancer Risk Factors

changed. Others, like a person's age or family history of cancer, can't be changed. Having a risk factor, or even many, does not mean that you will get cancer. And some people who get cancer may have few or no known risk factors.

- Risk factors you can change
- Risk factors you can't change
- Factors with an unclear effect on risk

Here are some of the risk factors known to increase a person's risk for pancreatic cancer.

Risk factors you can change

Tobacco use

<u>Smoking</u>¹ is one of the most important risk factors for pancreatic cancer. The risk of getting pancreatic cancer is about twice as high among people who smoke compared to those who have never smoked. About 25% of pancreatic cancers are thought to be caused by cigarette smoking. Cigar smoking and the use of smokeless tobacco products also increase the risk. It's never too late to stop smoking, since the risk of pancreatic cancer will drop once a person stops smoking. To learn more, see Can Pancreatic Cancer Be Prevented?

Being overweight

<u>Being very overweight (obese)</u>² is a risk factor for pancreatic cancer. Obese people (body mass index [BMI] of 30 or more) are about 20% more likely to develop pancreatic cancer.

Carrying extra weight around the waistline may be a risk factor even in people who are not very overweight.

Diabetes

Pancreatic cancer is more common in people with diabetes. The reason for this is not known. Most of the risk is found in people with type 2 diabetes. This type of diabetes is increasing in children and adolescents as obesity in these age groups rises. Type 2 diabetes in adults is also often related to being overweight or obese. It's not clear if people with type 1 (juvenile) diabetes have a higher risk.

Chronic pancreatitis

Chronic pancreatitis, a long-term inflammation of the pancreas, is linked with an increased risk of pancreatic cancer. Chronic pancreatitis is often seen with heavy alcohol use and smoking.

Workplace exposure to certain chemicals

Heavy exposure at work to certain chemicals (carcinogens) used in the dry cleaning and metal working industries may raise a person's risk of pancreatic cancer.

Risk factors you can't change

Age

The risk of developing pancreatic cancer goes up as people age. Almost all patients are older than 45. About two-thirds are at least 65 years old. The average age at the time of diagnosis is 70.

Sex

Men are slightly more likely to develop pancreatic cancer than women. This may be due, at least in part, to higher tobacco use in men, which raises pancreatic cancer risk (see above).

Race

African Americans are slightly more likely to develop pancreatic cancer than Whites. The reasons for this aren't clear, but it may be due in part to having higher rates of some other risk factors for pancreatic cancer, such as diabetes, smoking, and being overweight.

Family history

Pancreatic cancer seems to run in some families. In some of these families, the high risk is due to an inherited syndrome (explained below). In other families, the gene causing the increased risk is not known. Although family history is a risk factor, most people who get pancreatic cancer do not have a family history of it.

Inherited genetic syndromes

Inherited gene changes (mutations) can be passed from parent to child. These gene changes may cause as many as 10% of pancreatic cancers. Sometimes these changes result in syndromes that include increased risks of other cancers (or other health problems). Examples of <u>genetic syndromes</u>³

Coffee

Some older studies suggest that drinking coffee might increase the risk of pancreatic cancer, but more recent studies have not confirmed this.

Alcohol

Some studies show a link between <u>heavy alcohol use</u>⁸ and pancreatic cancer. Heavy alcohol use can lead to conditions such as chronic pancreatitis, which is known to increase pancreatic cancer risk.

Infections

Some research suggests that infection of the stomach with the ulcer-causing bacteria *Helicobacter pylori (H. pylori)* or infection with hepatitis B may increase the risk of getting pancreatic cancer. More studies are needed.

Hyperlinks

- 1. www.cancer.org/cancer/risk-prevention/tobacco.html
- 2. <u>www.cancer.org/cancer/risk-prevention/diet-physical-activity/body-weight-and-</u> <u>cancer-risk.html</u>
- 3. www.cancer.org/cancer/risk-prevention/genetics/family-cancer-syndromes.html
- 4. <u>www.cancer.org/cancer/types/pancreatic-cancer/detection-diagnosis-</u> staging/detection.html
- 5. <u>www.cancer.org/cancer/risk-prevention/genetics.html</u>
- 6. <u>www.cancer.org/cancer/risk-prevention/diet-physical-activity.html</u>
- 7. <u>www.cancer.org/cancer/risk-prevention/diet-physical-activity/diet-and-physical-activity.html</u>
- 8. <u>www.cancer.org/cancer/risk-prevention/diet-physical-activity/alcohol-use-and-cancer.html</u>

References

American Cancer Society. *Cancer Facts & Figures 2023.* Atlanta, Ga: American Cancer Society; 2023.

Beavers TB, Brown PH, Maresso KC, Hawk ET. Chapter 23: Cancer Prevention,

Screening, and Early Detection. In: Niederhuber JE, Armitage JO, Dorshow JH, Kastan MB, Tepper JE, eds. *Abeloff's Clinical Oncology*. 5th ed. Philadelphia, Pa. Elsevier: 2014.

Canto MI. Familial risk factors for pancreatic cancer and screening of high-risk patients. UpToDate website. https://www.uptodate.com/contents/familial-risk-factors-for-pancreatic-cancer-and-screening-of-high-risk-patients. Updated Jan 26, 2024. Accessed Feb 5, 2024.

Castillo CF and Jimenez RE. Epidemiology and nonfamilial risk factors for exocrine pancreatic cancer. UpToDate website.

https://www.uptodate.com/contents/epidemiology-and-nonfamilial-risk-factors-forexocrine-pancreatic-cancer. Updated Jan 23, 2023. Accessed Feb 5, 2024.

Lucenteforte E, La Vecchia C, Silverman D, et al. Alcohol consumption and pancreatic cancer: A pooled analysis in the International Pancreatic Cancer Case-Control Consortium (PanC4). *Ann Oncol.* 2012;23:374382.

Jesus-Acosta AD, Narang A, Mauro L, Herman J, Jaffee EM, Laheru DA. Chapter 78: Carcinoma of the pancreas. In: Niederhuber JE, Armitage JO, Dorshow JH, Kastan MB, Tepper JE, eds. *Abeloff's Clinical Oncology*. 6th ed. Philadelphia, Pa. Elsevier: 2020.

Noone AM, Howlader N, Krapcho M, Miller D, Brest A, Yu M, Ruhl J, Tatalovich Z, Mariotto A, Lewis DR, Chen HS, Feuer EJ, Cronin KA (eds). SEER Cancer Statistics Review, 1975-2015, National Cancer Institute. Bethesda, MD, https://seer.cancer.gov/csr/1975_2015/, based on November 2017 SEER data submission, posted to the SEER web site, April 2018.

Rock CL, Thomson C, Gansler T, et al. American Cancer Society guideline for diet and physical activity for cancer prevention. *CA: A Cancer Journal for Clinicians*.2020;70(4). doi:10.3322/caac.21591. Accessed at https://onlinelibrary.wiley.com/doi/full/10.3322/caac.21591 on Feb 5, 2024.

Winter JM, Brody JR, Abrams RA, Posey JA, Yeo CJ. Chapter 55: Cancer of the Pancreas. In: DeVita VT, Lawrence TS, Rosenberg SA, eds. *DeVita, Hellman, and Rosenberg's Cancer: Principles and Practice of Oncology.* 11th ed. Philadelphia, Pa: Lippincott Williams & Wilkins; 2019.

Last Revised: February 5, 2024

Can Pancreatic Cancer Be Prevented?

There is no sure way to prevent pancreatic cancer. But there are things you can do that might lower your risk.

- Don't smoke
- Watch your diet, body weight, and physical activity
- Avoid alcohol
- · Limit exposure to certain chemicals in the workplace

Don't smoke

Limit exposure to certain chemicals in the workplace

Avoiding workplace exposure to certain <u>chemicals</u>⁷ (carcinogens) may reduce your risk for pancreatic cancer.

Hyperlinks

- 1. www.cancer.org/cancer/risk-prevention/tobacco.html
- 2. <u>www.cancer.org/cancer/risk-prevention/diet-physical-activity.html</u>
- 3. www.cancer.org/cancer/risk-prevention/diet-physical-activity.html
- 4. <u>www.cancer.org/cancer/risk-prevention/diet-physical-activity/acs-guidelines-</u> <u>nutrition-physical-activity-cancer-prevention.html</u>
- 5. <u>www.cancer.org/cancer/risk-prevention/diet-physical-activity/alcohol-use-and-</u> <u>cancer.html</u>
- 6. <u>www.cancer.org/cancer/risk-prevention/diet-physical-activity/acs-guidelines-</u> <u>nutrition-physical-activity-cancer-prevention.html</u>
- 7. <u>www.cancer.org/cancer/risk-prevention/understanding-cancer-risk/known-and-probable-human-carcinogens.html</u>

References

Beavers TB, Brown PH, Maresso KC, Hawk ET. Chapter 23: Cancer Prevention, Screening, and Early Detection. In: Niederhuber JE, Armitage JO, Dorshow JH, Kastan MB, Tepper JE, eds. *Abeloff's Clinical Oncology*. 5th ed. Philadelphia, Pa. Elsevier: 2014.

Castillo CF and Jimenez RE. Epidemiology and nonfamilial risk factors for exocrine pancreatic cancer. UpToDate website.

https://www.uptodate.com/contents/epidemiology-and-nonfamilial-risk-factors-forexocrine-pancreatic-cancer. Updated Jan 23, 2023. Accessed Feb 4, 2024.

Rock CL, Thomson C, Gansler T, et al. American Cancer Society guideline for diet and physical activity for cancer prevention. *CA: A Cancer Journal for Clinicians.* 2020;70(4). doi:10.3322/caac.21591. Accessed at https://onlinelibrary.wiley.com/doi/full/10.3322/caac.21591 on Feb 5, 2024.

Winter JM, Brody JR, Abrams RA, Posey JA, Yeo CJ. Chapter 55: Cancer of the Pancreas. In: DeVita VT, Lawrence TS, Rosenberg SA, eds. *DeVita, Hellman, and*

Rosenberg's Cancer: Principles and Practice of Oncology. 11th ed. Philadelphia, Pa: