

Busting Myths About Head and Neck Cancers

Are young people safe from these cancers? Are they always caused by smoking? Colorado University expert Carissa Thomas has answers.

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Cancer is a topic that can inspire uncertainty, fear, and misconceptions. And when it comes to [head and neck cancers](#), myths abound – myths involving everything from cell phones to mouthwash.

Head and neck cancers are a large and varied group of cancers that start in the mouth, throat, larynx (voice box), nose, sinuses, and salivary glands. About 4% of all cancers fall under this category. Most of these cancers begin in the [squamous cells](#) that line the moist inner surfaces of the head and neck. Common risk factors include smoking, heavy to moderate alcohol use, and human papillomavirus (HPV) infection.

The [University of Colorado Anschutz Cancer Center](#) specializes in head and neck cancers. The cancer center has received a highly competitive [Specialized Programs of Research Excellence \(SPORE\) grant](#) from the National Cancer Institute. Patients are evaluated by a [multidisciplinary clinic](#) of several specialists, and the cancer center regularly offers head and neck cancer [clinical trials](#) bringing new therapies to patients.

[Carissa Thomas](#), MD, PhD, FACS, is an associate professor in the CU Anschutz [Department of Otolaryngology – Head & Neck Surgery](#) for whom cancers of the head and neck are a research and clinical focus. We asked her to bust several of the more often-repeated myths about these cancers.

Myth: Young people don't get head and neck cancer.

Facts: Around the age of 60 to 70 is when most people present with head and neck cancer. But somewhere around 5% of patients we see are under the age of 40. I think some of the misperception comes from the fact that many younger people have fewer risk factors than older people — less smoking and heavy drinking. In oral cavity tumors, especially tongue cancer, we've seen the biggest increase of young patients with no obvious risk factors.

In many cases, it's unclear why young people are getting head and neck cancer, especially tongue cancer. Viruses do not cause these oral cavity cancers. Genetic changes only account for a very

small number of cancer cases. A couple of studies suggest that a dietary issue, such as sugary beverages, may be contributing to some head and neck cancers, especially oral cavity cancer in young patients. Overall, cancer guidelines recommend against sugary beverages because they can contribute to obesity, which has impacts on cancer. Also, some evidence shows that poor dental care and periodontal disease can contribute as well. But there's no hard-and-fast proof yet.

Myth: Only tobacco users get head and neck cancer.

Facts: Historically, almost all head and neck cancer patients were tobacco users, especially if it was an oropharyngeal, oral cavity, or larynx cancer. Over time, it's shifted. Now, more of our patients are getting oropharyngeal cancer from HPV, especially younger patients, and less often from a history of smoking.

Myth: There's no vaccine to prevent head and neck cancers.

Facts: The HPV vaccine is super important to reduce the risk of head and neck cancers. You usually get infected with the HPV virus when you're young, at a time when people aren't thinking about cancer so much, and it may take 20 years or so for it to actually cause cancer. So getting vaccinated is essential.

→ [Jessica McDermott, MD, talks about HPV as an increasingly prevalent risk factor for head and neck cancers.](#)

Myth: If a mass, lump, or lesion isn't painful, it's not cancer.

Facts: I see so many patients who come in with a painless neck mass that's been growing but hasn't been causing any symptoms. It gets treated with antibiotics, but doesn't go away. Then finally, months later, they get a biopsy and it ends up being cancer, usually one that has spread from somewhere in the throat.

We usually say that if there's a lesion, mass, lump, or bump that's been there for more than three weeks, it needs to be evaluated, even if it's not causing any symptoms.

Myth: Head and neck cancers are always deadly.

Facts: We think of survival as the chance of being alive 5 years after treatment. Overall, compared to other cancers, head and neck cancers don't have the highest five-year survival rates. We have a lot of room to improve this. One issue is that a lot of head and neck cancers present at later stages, which means those patients have a lower rate of survival. About 60% or so of our patients come in when they're already at stage III or IV disease, which either means a big tumor or it's spread to the lymph nodes in the neck.

If you come in at an early stage, your chances of survival are better. So the big thing is trying to get people to recognize the [signs and symptoms](#) and to get evaluated earlier, so they can be diagnosed at that earlier stage. These signs and symptoms include a neck mass, tongue lesion, sore throat, ear pain, voice changes, trouble swallowing, and coughing or spitting up blood.

Myth: Mouthwash prevents oral cancer.

Facts: There's poor evidence of that, but it depends how you think about it. We do know that periodontal disease and poor dental care increases your risk of head and neck cancers, so I suppose that if you have a very good dental care regimen, you're going to the dentist, you're brushing your teeth, and you're doing mouth rinse, you could extrapolate that it prevents head and neck cancer. But there are probably too many other factors going into it to draw a conclusion.

Myth: Surgery for head and neck cancers always leaves you unable to speak.

Facts: Sometimes myths develop because they're an attempt to simplify things. But head and neck cancers are not simple, because there are so many sites. Depending on where the cancer is, surgery could affect your voice box or your ability to articulate.

I would say maybe 40% to 50% of head and neck cancer surgeries can have an impact on your ability to speak, but not every case. And there's a range of severity as well, depending on the extent of the treatment. It's a conversation to have with your provider ahead of treatment, but it should not make someone afraid to get evaluated.

Myth: Mobile phones can cause head and neck cancer.

Facts: There's no definitive evidence I know of that there's a direct causation, or even an association, involving phones. Mobile phone use is so widespread, but there hasn't been a proportional increase in cancer cases. The type of radiation emitted from mobile phones can't damage DNA. I've never seen that come up in literature related to risk factors for head and neck cancers.

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