

EVERYTHING YOU NEED TO KNOW ABOUT HEAD & NECK CANCER

Head and neck cancer includes cancers of the mouth, nose, sinuses, salivary glands, throat, and lymph nodes in the neck.



7th MOST

common cancer worldwide in 2021¹



890,000

new cases each year worldwide¹

2x MORE MEN

are diagnosed with head and neck cancer, compared to women²

PEOPLE OVER AGE 40

are at higher risk than young people²

70%

of cancers of the oropharynx (tonsils, soft palate & base of tongue) are linked to human papilloma virus (HPV), a common sexually transmitted virus³

EARLY DIAGNOSIS IS KEY

Surgery or radiotherapy provides good long-term outcomes in **70-90%** of patients with early-stage head and neck cancer¹

About **1 in 3** patients are diagnosed at Stage I or II¹



KNOW YOUR RISK

There are several factors that may increase your risk for head & neck cancer including:

TOBACCO USE

All tobacco products — cigarettes, cigars, pipes and smokeless tobacco — increase the risk of head and neck cancer

5x-10x HIGHER RISK

than non-tobacco users⁴

ALCOHOL USE

Drinking any type of alcohol — liquor, wine, beer, etc. — raises the risk for head and neck cancer. Heavy alcohol use is strongly linked with this type of cancer

2x-6x HIGHER RISK

in people who have 2+ alcoholic drinks per day⁵

ALCOHOL & TOBACCO

use causes

75%+

of all head & neck cancers⁶



OCCUPATIONAL EXPOSURES

Frequent exposure to wood dust, formaldehyde, asbestos, nickel and other substances can increase the risk of head and neck cancers

EPSTEIN-BARR VIRUS

Previous infection with the Epstein-Barr virus, which causes infectious mononucleosis among other illnesses, can raise the risk

GERD & LPRD

Gastroesophageal reflux disease (GERD) and laryngopharyngeal reflux disease (LPRD) may increase the risk of head and neck cancer

KNOW THE SIGNS OR SYMPTOMS OF HEAD & NECK CANCER

The symptoms of head and neck cancer vary widely from person to person. Many people do not experience symptoms until the later stages, but symptoms commonly include:

- A sore in the mouth or throat that does not heal
- Red or white patch inside the mouth
- Swelling or mass in the jaw, head or neck area
- Unusual bleeding or nasal discharge
- Voice changes or hoarseness
- Foul mouth odor not explained by hygiene
- Persistent nasal congestion or frequent sinus infections
- Pain when swallowing
- Pain in the ears, teeth, face, neck or throat that doesn't go away

HOW IS HEAD & NECK CANCER DIAGNOSED?

SCREENING



Regular Dental Checkups

Dental checkups at regular intervals can help catch abnormalities worthy of further investigation



High-Risk Screening

People who regularly drink alcohol, or who use or have used tobacco products, should receive a general oral examination at least once annually

DIAGNOSTIC TESTING

If screening suggests abnormalities, a doctor may prescribe a variety of diagnostic tests to confirm and stage a head and neck cancer diagnosis:

- Blood & urine analysis
- Endoscopy
- Imaging (X-ray, ultra sound, CT, PET or MRI)
- Biopsy

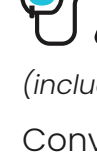
WHAT ARE THE TREATMENT OPTIONS?

Today there are more options than ever for effectively treating head and neck cancers. Medical care teams often use multiple treatment modalities to achieve the best outcome for the patient. The “best” option for each patient depends on the stage of cancer, age, lifestyle and overall health.



SURGERY

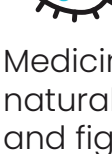
An operation is performed to remove cancerous tissue, as well as a margin of healthy tissue



CHEMOTHERAPY

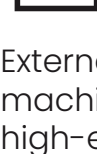
(including Targeted Therapy)

Conventional chemotherapy uses drugs to kill rapidly growing cancer cells or stop them from dividing. Targeted therapy uses drugs that target the specific genes or proteins of a tumor — blocking the growth and spread of the tumor cells



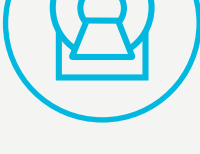
IMMUNOTHERAPY

Medicines that aid the body's natural defenses in identifying and fighting cancer cells



RADIATION THERAPY

External beam radiation uses a machine outside the body to direct high-energy x-rays to kill, shrink or control the growth of tumors



RADIATION THERAPY IMPROVES WHAT'S POSSIBLE IN HEAD & NECK CANCER TREATMENT

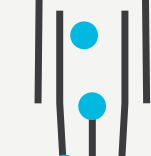
Surgery is a common treatment for head and neck cancers, but there are many cases where it may not be possible — or simply may not be the best option available. Advanced radiation therapy treatments are playing an increasingly important role in improving clinical outcomes for patient with head and neck cancers.

- Radiation treatments are non-surgical and non-invasive
- Good clinical outcomes
- Most patients can continue normal activity throughout treatment
- Can be used after surgery and alongside some chemotherapies or immunotherapies



IMAGE-GUIDED INTENSITY-MODULATED RADIOTHERAPY (IG-IMRT) FOR HEAD & NECK CANCER

IG-IMRT is an advanced type of radiation therapy used to treat head and neck cancers at various stages of the disease. IG-IMRT uses daily imaging and extremely precise modulation of the radiation dose to carefully shape the radiation dose to fit the contours of the tumor, while helping to minimize dose to the delicate and critical structures of the head and neck



STEREOTACTIC BODY RADIATION THERAPY (SBRT)

SBRT is a form of radiotherapy that uses precisely targeted high doses of radiation to destroy tumors. SBRT is non-invasive; there is no incision involved. It couples a high degree of non-targeting accuracy with very high doses of extremely precise, externally delivered radiation, thereby maximizing the cell-killing effect on the tumor(s) while minimizing the dose to nearby healthy tissue. If a tumor relapses (comes back) after radiation therapy, SBRT can be used to perform a second radiation therapy treatment

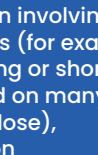
WHAT ABOUT PREVENTION?

There are several ways to help lower the risk of head & neck cancer:

- 1 STOP USING TOBACCO PRODUCTS**
Quitting at any age reduces your risk
- 2 LIMIT ALCOHOL**
Limit alcohol consumption to 2 or fewer drinks per day
- 3 REDUCE YOUR HPV RISK**
Vaccination against HPV can reduce your risk of certain types of head and neck cancer
- 4 VISIT THE DENTIST**
Regular dental checkups can catch head neck cancers early

Learn more about how Accuray is redefining what's possible in the treatment of head & neck cancer.

RADIXACT®



Important Safety Statement: Most side effects of radiotherapy, including radiotherapy delivered with Accuray systems, are mild and temporary, often involving fatigue, nausea, and skin irritation. Side effects can be severe, however, leading to pain, alterations in normal body functions (for example, urinary or salivary function), deterioration of quality of life, permanent injury and even death. Side effects can occur during or shortly after radiation treatment or in the months and years following radiation. The nature and severity of side effects depend on many factors, including the size and location of the treated tumor, the treatment technique (for example, the radiation dose), the patient's general medical condition, to name a few. For more details about the side effects of your radiation therapy, and if treatment with an Accuray product is right for you, ask your doctor

Sources:
 1 New England Journal of Medicine, <https://www.nejm.org/doi/pdf/10.1056/NEJMra1715215?listPDF=true>, accessed August 11, 2021.
 2 Cancer.net, <https://www.cancer.net/cancer-types/head-and-neck-cancer/risk-factors-and-prevention>, accessed August 11, 2021.
 3 Centers for Disease Control, <https://www.cdc.gov/cancer/headneck/index.htm>, accessed on August 11, 2021.
 4 Johns Hopkins Medicine, <https://www.hopkinsmedicine.org/health/conditions-and-diseases/oral-cancer-and-tobacco>, accessed August 11, 2021.
 5 National Cancer Institute, <https://www.cancer.gov/about-cancer/causes-prevention/risk/alcohol/alcohol-fact-sheet#what-is-the-evidence-that-alcohol-drinking-can-cause-cancer>, accessed August 11, 2021.
 6 Cancer Treatment Centers of America, <https://www.cancercenter.com/cancer-types/head-and-neck-cancer/risk-factors>, accessed August 11, 2021.