

Cancer Prevention in the Workplace

Making the Workplace Safe¹

Employers can help reduce workers' cancer risk by addressing these main three categories:

- **Harmful exposures in the workplace.**

Asbestos, diesel exhaust, and radon are examples of harmful substances that may be present in workplace settings. These substances can increase a person's risk for certain types of cancer and should be eliminated or reduced as much as possible.

Smoke from other people's cigarettes (secondhand smoke) increases cancer risk in workers who don't use tobacco themselves. Implementing tobacco-free workplace policies can help protect workers. Outdoor workers are often exposed to the sun for long periods of time, which increases their risk for skin cancer. Providing shade and protective gear to outdoor employees can help them stay sun-safe on the job.

- **Unhealthy behaviors.**

Certain behaviors can also increase cancer risk; for example, tobacco use (both smoking and chewing), alcohol consumption, poor eating habits, and not getting enough physical activity. Workplace wellness programs can help promote healthful behaviors among workers. Examples include tobacco use cessation programs, seminars on health topics such as healthy eating and stress management, walking programs, and healthy choices in vending machines.

- **Chronic Conditions.**

Diabetes and obesity are examples of chronic conditions that increase risk for certain types of cancer, including cancers of the female breast, colon, endometrium, and pancreas. Workplace wellness programs such as weight management programs and preventive screenings can help employees successfully manage or even prevent chronic conditions.

Factors Related to Cancer Risk²

Many cancer risk factors could be influenced through efforts targeting the work environment, including facilities, services, and policies. Tables 1.1 and 1.2, respectively, show detailed examples of risk and protective factors that may be amenable to workplace interventions.

Table 1.1 provides a break down of cancers associated with workplace related risks as well as their prevalence among US adults. Table 1.2 provides examples of protective factors (e.g., staying physically active) that may reduce cancer risk. These factors affect a high percentage of US workers, so even small changes could have a large impact at the population level. Many of the examples are also related to other health outcomes, and the benefits of addressing them would extend well beyond cancer prevention.

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Table 1.1 Examples of Risk Factors That May Be Amendable to Workplace Interventions²

Risk Factors	Associated Cancers	Prevalence Among US Adults
Alcohol consumption	Breast, colorectum, esophagus, larynx, liver, oral cavity, pharynx	Approximately 55% of adults drink alcohol, 17% of adults are binge drinkers, and 6% are heavy drinkers
Asbestos	Larynx, lung, mesothelioma, ovary	An estimated 1.3 million construction and general industry workers are potentially exposed to asbestos
Diabetes	Bladder, breast, colon, endometrium, liver, pancreas	Approximately 11% of adults have diabetes, and prevalence increases with increasing age
Diesel exhaust	Lung	The amount of diesel exhaust adults are exposed to varies greatly, but some of the highest levels of exposure are among certain types of workers (e.g., truck drivers, miners)
Obesity	Colorectum, endometrium, esophagus, gallbladder, kidney, pancreas, postmenopausal breast	More than one-third of adults are obese
Radiation exposure from medical imaging	Breast, leukemia, lung, thyroid	Americans receive nearly half their total radiation exposure from medical imaging and other medical sources
Radon	Lung	Approximately 37% of all radiation exposure is attributed to radon, and there are an estimated 21,000 lung cancer deaths attributed to radon exposure each year
Red meat consumption	Colorectum	Adults consume an average of approximately 40g of red meat per day per person
Sedentary behavior	Colorectum, endometrium, ovary, prostate	Among employed adults, 4 out of 5 have occupations that are sedentary or require only light physical activity
Shift work	Breast	Approximately 15% of full-time wage and salary workers usually work a nonstandard shift
Tobacco use	Acute myeloid leukemia, bladder, cervical, colorectum, esophagus, kidney, larynx, liver, lung, oral cavity, pancreas, pharynx, stomach	One in 5 working adults smokes cigarettes
Ultraviolet radiation exposure	Skin (melanoma and nonmelanoma), melanoma of the eye	Approximately 37% of adults experienced sunburn in the past 12 months (26); among employed adults, about 1 in 4 regularly works outdoors twice per week or more

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Table 1.2 Examples of Protective Factors That May Be Amendable to Workplace Interventions²

Protective Factors	Associated Cancers	Prevalence Among US Adults
Fruit consumption	Esophagus, larynx, lung, pharynx, oral cavity, stomach	Most adults do not meet federal dietary recommendations for fruit intake
High-fiber diet	Colorectum	Less than 5% of adults meet or exceed adequate intake levels for dietary fiber
Physical activity	Colorectum, endometrium, postmenopausal breast	Only 1 in 5 adults meets the 2008 Physical Activity Guidelines for Americans
Radon testing and mitigation	Lung	Only 3 states (Florida, New Hampshire, and Rhode Island) require radon testing in all public buildings
Vegetable consumption	Esophagus, larynx, stomach, oral cavity, pharynx	Most adults do not meet federal dietary recommendations for vegetable intake
Weight maintenance	Postmenopausal breast	Most adults experience clinically meaningful weight gain (≥ 22 pounds) during adulthood

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Integrating Health Protection and Health Promotion²

Traditionally, workplace health promotion programs have focused on health-related behaviors (e.g., tobacco use cessation), while health protection programs have focused on addressing safety and health risks and hazard mitigation. New research provides evidence that integrating these two approaches may enhance program effectiveness to improve employee health, safety, and well-being.

As discussed in the [National Prevention Strategy](#), efforts to ensure worker safety on the job while also providing a work environment that supports healthy behaviors can create a culture in which worker health is viewed as a priority and healthy behaviors are more likely to be adopted by employees.

Because many cancers share risk factors with other diseases and chronic conditions, cancer prevention efforts in the workplace may also be enhanced by coordination with initiatives to address other diseases and chronic conditions. For example, the role of obesity as a risk factor for cancer and type 2 diabetes has been explored in occupational settings. This integrated and comprehensive approach maximizes program success and potential for sustainability over time.

References

1. *Cancer Prevention in the Workplace*. (2014, September 17). Retrieved from <http://www.cdc.gov/cancer/dccp/resources/features/cancerpreventioninworkplace/>
2. *Cancer Prevention and Worksite Health Promotion: Time to Join Forces*. (2014, July 24). Retrieved from http://www.cdc.gov/pcd/issues/2014/14_0127.htm