What is cancer?

Cancer is a term for diseases in which abnormal cells grow and divide without control. This is usually the result of damage to a number of regulatory mechanisms within the cell [1]. These damaged cells grow to form a tumour - an abnormal mass of tissue which can be cancerous or benign (non-cancerous). Unlike the cells in benign tumours, cancer cells can invade nearby tissues and spread via a process known as metastasis. Metastasis occurs when cells become detached from the initial tumour and are carried through the bloodstream and lymphatic system to other parts of the body [2]. This eventually interferes with the function of normal cells and can lead to the death of the patient [1].

There are over 100 different types of cancer, each with its own pattern of growth and spread [3]. While the risk factors for different cancers may be shared or unique, the cause may still be unknown [4]. The risk factors for cancer that are known can be broadly divided into environmental and internal (host) factors. Environmental factors include chemicals, radiation and viruses [2]. Chemicals that have been identified as carcinogenic (cancerous) include tobacco smoke, alcohol (if consumed excessively) and asbestos, as well as certain industrial chemicals and medical drugs. Diet is also thought to initiate or promote various cancers [1]. Internal or host factors include hormones, immune conditions and inherited mutations [2]. While some cancers, such as breast and colon cancer, are thought to have a strong ‘familial predisposition’, there is still no evidence that cancer is normally ‘programmed’ in the cells.

The frequency of cancer increases with age, with relatively few people acquiring cancer before the age of 30 years. This is partly because it can take many years to acquire the multiple abnormalities

More detailed information about cancer in Indigenous people can be found at:
http://www.healthinfonet.ecu.edu.au/cancer_review
that generate cancer cells [1]. Furthermore, the probability of being exposed to the risk factors for cancer also increases with time.

References


The Australian Indigenous HealthInfoNet is an innovative Internet resource that contributes to ‘closing the gap’ in health between Indigenous and other Australians by informing practice and policy in Indigenous health.

Two concepts underpin the HealthInfoNet’s work. The first is evidence-informed decision-making, whereby practitioners and policy-makers have access to the best available research and other information. This concept is linked with that of translational research (TR), which involves making research and other information available in a form that has immediate, practical utility. Implementation of these two concepts involves synthesis, exchange and ethical application of knowledge through ongoing interaction with key stakeholders.

The HealthInfoNet’s work in TR at a population-health level, in which it is at the forefront internationally, addresses the knowledge needs of a wide range of potential users, including policy-makers, health service providers, program managers, clinicians, Indigenous health workers, and other health professionals. The HealthInfoNet also provides easy-to-read and summarised material for students and the general community.

The HealthInfoNet encourages and supports information-sharing among practitioners, policy-makers and others working to improve Indigenous health – its free on line yarning places enable people across the country to share information, knowledge and experience. The HealthInfoNet is funded mainly by the Australian Department of Health and Ageing. Its award-winning web resource (www.healthinfonet.ecu.edu.au) is free and available to everyone.