

# Introduction to critical thinking

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Tomatoes Protect Skin against Cancer By Lecturer's and Skin cancer is all about abnormal cells changes in the outer layer of the skin. This is the most reported case in terms of cancer making an approximate of 75% of all the cancer diagnosis. However, this disease is curable despite the fact that it is a problematic health concern that is of major concern due to the fact that it affects very many people (SUN-WATERHOUSE, 2011). There are a higher number of cases on skin cancer despite the fact that this can be prevented by limiting exposure to ultraviolet rays or radiations.

It is worth noting that this type of cancer is highly reported on men as compared to women since men are likely to be affected 3 times as compared to women (AGNEW, GILCHREST & BUNKER, 2005). Age bracket highly affected are those between 45 and 54 of age. Many cancers are caused by the ultra-violet radiation as this tends to suppress the immune functionality and the aging. Basing on the above fact about cancer there is an issue that tomatoes protect the skin against skin that would later prevent it against cancer infection (DELMAS, JANNIN & LATRUFFE, 2005). In this regard, this is the issue that I have chosen to discuss on in my paper. It is worthwhile noting that ultra-violet radiation from the sun exerts aging and carcinogenic effects on the skin through the oxidative stress, inflammation and damage of DNA.

Due to these facts, there has been a lot of desire to find out more on skin cancer by the scientist community in using antioxidants from plant foods to protect against these damages. Through use of animal study, photo-protection has been demonstrated.

This was achieved by use of variety of antioxidant supplements that involved green tea catechins, proanthocyanadins, resveratrol, and silymarin (SUN-  
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WATERHOUSE, 2011). These substances are antioxidant. In addition, they are also able to absorb ultra-violet rays from the sun when applied typically, more so enable repair of damaged DNA and also reduce inflammations. Pink and red fruits such as tomato, grapefruit and papaya are thought to have lycopene a carotenoid antioxidant which is well known for its prostate cancer protective effects. This is usually of high content in well cooked tomato products such as tomato pastes. Lycopene is well known to be a very powerful antioxidant that is vitro which is a known to prevent or repair the damaged DNA that could lead to cancer development. Moreover, lycopene stimulates the production of antioxidant enzymes and hinders signals that could lead to development of tumours.

Through recent research, it was tested whether the antioxidant actions of lycopene in tomato paste could reduce skin damaging effects of ultra-violet radiation in human beings. The study took twelve weeks. It involved healthy women who consumed tomato paste from day one till the end of the study. During the study the reddening effect of their skin due to the ultra-violet rays was measured at the beginning and towards the end (DELMAS, JANNIN & LATRUFFE, 2005). It was discovered that the skin's resistance to UV-induced reddening was enhanced after twelve weeks of tomato supplementation. In addition, the tomato supplementation reduced the incidences of mitochondria damages and enzymes that degrade the skins extracellular proteins that lead to aging of the skin. Therefore, this suggests that tomato consumption can help cut down skin-damaging effects of the sun due to its richness in protective compounds (SUN-WATERHOUSE, 2011).

#### Reference list

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