Scientists warn dental x-rays increase cancer risk

Dental x-rays can increase the risk of thyroid cancer, according to a new study.

A research team from Brighton and Cambridge and Kuwait studied 515 thyroid cancer patients in Kuwait where the numbers of thyroid cancer are relatively high compared with Britain. The researchers asked the cancer patients and a similar number of healthy volunteers how many dental x-rays they had had. After factoring in hospital x-rays, they found that men and women who had had up to four dental x-rays were more than twice as likely to have developed the disease than those who had never had any. Between five and nine x-rays and their risk rose more than four-fold. However, the researchers warned that the results of their study ‘should be treated with caution’ because the data was based on self-reporting by the participants as comprehensive historical dental x-ray records were not available from the clinics. The researchers are now calling for further investigation as currently guidelines state that low-dose radiation exposure through dental radiography is safe.

Dentists here consider the necessity of x-raying patients on a case-by-case basis, employing defmed risk-benefit assessment criteria to make their decisions and ensure that unnecessary x-rays are not taken. Dentists are fully trained in radiography and undergo regular training to ensure their skills remain up to date.

The incidence rates of thyroid cancer have doubled from 1.4 per 100,000 in 1975 to 2.9 per 100,000 in 2008 in the UK. The team has linked this to more and more patients having dental x-rays.

However, the researchers say that many other factors can also be causing the increase in thyroid cancer cases. The sensitive diagnostic techniques cannot solely be blamed. To confirm the exact effect of such techniques on cancer, further research is required. The study was published in the medical journal Acta Oncologica.