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WHY IS THERE A LEFT LATERALITY OF MELANOMA AND BREAST CANCER?

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Aims: The object of this study was to understand why breast cancer frequently occurs in the left breast among both women and men[1]. Also melanoma is more common on the left side of the body[2].

Background: Current explanations for left-sided breast cancer (Fig. 1) include handiness, size difference, nursing preference, and brain structure. However, men are affected even more by left laterality than women, thus many of these explanations are unconvincing. Increasing rates of skin melanoma have been associated with immune-disruptive radiation from FM/TV transmitters[3]. Geographical areas covered by several transmitters show higher incidences of melanoma than areas covered by one transmitter (Fig 2).

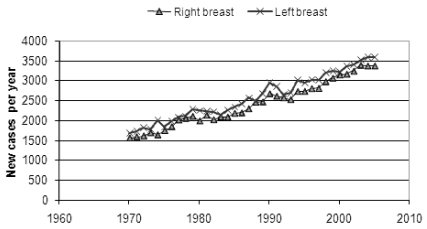

Figure 1. The annual number of new cases of cancer diagnosed in the left and right breasts of women in Sweden

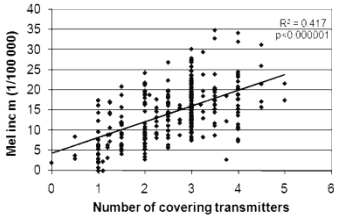

Figure 2. Melanoma incidence rates in 1989 - 1993 in 289 Swedish residential areas vs. the number of FM - transmission towers covering the area.

Results: A high prevalence of breast cancer and melanoma on the left side of the body may be a logical consequence of sleeping in beds having mattresses containing wave-reflecting metal springs. People tend to sleep for longer periods on their right side, apparently to avoid disturbance by the heartbeat. Thus the left side will spend, on average, more time exposed to stronger combined fields from incident and reflected waves a distance above the metal spring mattress. This hypothesis may also explain why body parts furthest away from the mattress (trunk and upper arms for men; lower limbs and hips for women) have higher melanoma rates than the sun-exposed face area.

E-fields close to the metal	E-fields $\lambda/4$ above the metal
Incident: $E \cdot \sin(x)$; Reflected: $E \cdot \sin(x+\pi)$	Incident: $E \cdot \sin(x-\pi/2)$; Reflected: $E \cdot \sin(x+3\pi/2)$
Sum of fields: $\lvert E \cdot \sin(x) + E \cdot \sin(x+\pi) \rvert = E - E = 0$	Sum of fields: $\lvert E \cdot \sin(x-\pi/2) + E \cdot \sin(x+3\pi/2) \rvert = 2E$

Since the frequency used for FM broadcasting is around 100 MHz, the half wave length is 1.5 m and thus body-resonant (Fig 3). This means that the body can absorb more of radiant energy at that frequency than at other frequencies[4]. Countries having high rates of melanoma also have high rates of breast cancer. (Fig 4)

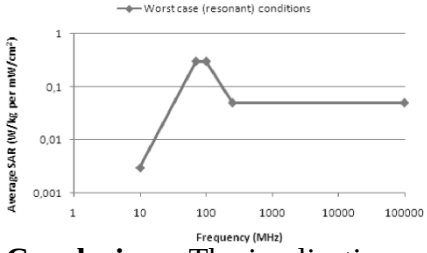

Figure 3. Worst case energy absorption by the human body vs. frequency.

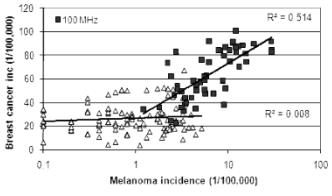

Figure 4. Breast cancer incidence vs. melanoma incidence in different countries

Conclusions: The implications of this study should promote a critical consideration of population exposure to electromagnetic fields, especially during the night. Wave-reflecting beds with metal spring mattresses should be avoided as e.g. in Japan where melanoma only reaches 3% of the Swedish incidence.

References: **http://hir.nu/LeftRef.htm**