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Tattoos: research on the possible increased risk of chronic diseases is needed

Very little is known about the influence of tattoos on the development of chronic diseases. A study by the German Federal Institute for Risk Assessment (BfR) has now investigated this question. The study was based on data from 4,248 study participants, 320 (7.4 percent) of whom had tattoos or permanent make-up. Due to the small sample size, no statistically reliable conclusions could be drawn and no direct causal effects were identified. However, there are gaps in the data regarding possible chronic effects, which should be addressed in future studies.

Due to its methodology (epidemiological study), the study published in the journal “PLOS One” does not allow any causal conclusions to be drawn. It is therefore not possible to answer the question of whether there is a causal link between tattoos and an increased risk of disease or whether this is merely a correlation, i.e. whether other factors are at play. In addition, the significance of the study is limited due to the relatively small number of participants. According to the BfR research team, further studies should now be conducted to investigate this suspicion.

Link to the study:

https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0319229&utm_source=internal&utm_medium=email&utm_campaign=author

The study was based on the LIFE Adult Study conducted by the Leipzig Research Centre for Civilisation Diseases. This is a long-term study on the development of common diseases involving 10,000 adults from the Leipzig population. 4,248 of them took part in the tattoo study, completed a questionnaire and underwent a blood test.

Of the tattooed study participants, 5 percent reported medical complications related to their tattoo or permanent make-up. Compared to non-tattooed individuals, tattooed individuals had a slightly increased risk of heart disease. Tattooed participants also had elevated liver enzymes compared to the non-tattooed control group. However, there was no clear evidence of a skin cancer risk associated with tattoos.

Known health risks associated with tattoos include skin inflammation and allergic skin reactions.

Further information on tattoos is available on the BfR website:

Questions and answers about tattoo inks:

<https://www.bfr.bund.de/en/service/frequently-asked-questions/topic/frequently-asked-questions-about-tattoo-inks/>

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