

O15. REACTION OF LYMPH NODES ON TATTOO PIGMENTS

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After application of tattoo pigments into the skin for a permanent tattoo pigments are stored inside of macrophages in the dermis and in lymph nodes. In the dermis and inside of lymphatic vessels on the way to the lymph nodes pigments and their additives have contact with cells of the immune system leading to a more or less pronounced inflammatory reaction. This inflammatory reaction is dependent on the mixture of the pigments and their additives on one hand and on the status of the immune system of the owner of the tattoo on the other hand. The differences of tattoo pigments make it difficult to compare inflammatory reactions on tattoos. Moreover, information about the components of tattoo pigments are hardly available for many customers.

So far, we see no long standing differences of reactions on black versus multicolored tattoo pigments in lymph nodes. Acute reactions days or weeks after tattooing are regularly seen, e.g. swelling because of production of new follicles in the draining lymph nodes. Years after tattooing pigments are still verified all over the lymph node and macrophages of the dermis containing pigments are still entering lymphatics leading to the next draining lymph node. Some pigments are seen as fine granules and others are aggregated in huge clusters inside of macrophages. In lymph nodes of elderly people lymph node parenchyma is replaced by fat, this phenomenon is called fatty degeneration. Because of the degeneration less macrophages and pigments are seen in these lymph nodes and the question has to be ask where the stored pigments inside of their macrophages are gone. Possible localizations are downstream lymph nodes or distant organs with high capillary networks of the blood vascular system.