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NERVE RECONSTRUCTION

SHORT INFO

The extensive repertoire of reconstruction options allows every person concerned to find an individual treatment. This should be selected in a joint consultation.

Depending on the height of the nerve lesion, there are typical distribution patterns of lost muscle function and sensibility in the skin areas supplied by these nerves. Direct injuries of the soft tissues come into question as a cause, which is why exact evaluation immediately after the trauma is of great importance for timely reconstruction, but also the need to remove nerves in the course of tumour resections. It is important in the latter case to already consider the possible nerve reconstruction or motor replacement surgery in the pre-operative planning. Blunt trauma can also cause the loss of a nerve's function by pressure damage, overextension or severance.

While the advantage of primary treatment of an injured nerve resides in the possibility of a direct nerve suture, and hence a more favourable expected result, older ruptures of a nerve will in most cases call for the resulting gap to be bridged with microsurgical nerve transplants, taking another, expendable nerve from the lower leg to restore the continuity of the more important nerve. The guiding structure of the nerve transplant enables the regenerating nerve fibres to find their target organ again, and partial functions can be regained, as a minimum, within several months. Freeing the nerve from the surrounding scar (neurolysis) can occasionally lead to an improvement of the function or also, as a minimum, alleviate neuralgia (nerve pain) caused by the scar. Nerve injuries may furthermore leave an extremely painful nerve stump behind in amputations, which can usually be improved by nerve surgery addressing the factors that trigger the pain. If direct reconstruction of nerve tracts should prove inadequate, supplementary replacement operations are performed in the sense of tendon transfers or microsurgical muscle transplants. Progress in the microsurgery of peripheral vessels and nerves hence enables definitively lost motion functions to be restored with a result that is of relevance for the patient, after all.