

**2:45 p.m. Vascularized and Conventional Interposition Nerve Grafts: A Histomorphologic Comparison in the Rabbit.**  
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The recent development of microsurgically revascularized nerve grafts for reconstruction of peripheral motor nerve defects may be applicable to facial nerve reconstruction. Revascularized nerve grafts theoretically provide improved neural regeneration in tissues which have been devascularized by trauma, recent surgery, or radiation. Neural regeneration with conventional interposition nerve grafts is typically suboptimal in such settings.

The superiority of vascularized nerve grafts has not been conclusively demonstrated clinically or in the laboratory. In this study, vascularized and conventional interposition nerve grafts have been compared in the median nerve of the rabbit. We hypothesized that in healthy rabbit tissue, neural regeneration would be similar in vascularized and conventional nerve grafts when compared histomorphologically. Ultrathin sections from the regenerating nerve grafts have been analyzed for regenerating fiber counts, fiber density, and fiber diameter using the bloquant system of image analysis. In addition, the viability of supporting cells and vascularity of the grafts were assessed qualitatively. The quantitative and qualitative morphologic data obtained provides foundation work for further detailed evaluation of vascularized nerve grafts.