The treatment results of patients with diseases of peripheral nervous system are presented. 60 patients with ischemic neuropathias and 15 patients with diabetic polyneuropathy (age range 15-85 years) were treated at Ozone Therapy Department of Regional Diagnostic Center. They underwent a course of ozone therapy of dropping injections of ozonated saline and/or rectal insufflations of ozone/oxygen mixtures. 94% patients had positive effect. No complications or side effect were noted. All the patients stated a significant reduction and in 60% a complete disappearance of acroparesthesias and pains, having been the main complaint before the treatment. Tetrapolr rheography of extremities showed increase of pulse bloodfilling, moderate reduction of minor-vascular tension. One third of patients had changes in thermovision picture as local hyper- or hypothermia at the point of innervation of lesioned nerve. All the patients had a distinct positive dynamics as a diminished thermal difference with surrounding tissues and symmetric area. Electromyography revealed 5.6 m/sec increase of impulse rate along motor and sense fibers. Thus, ozone therapy is an effective method in treating diseases of peripheral nervous system, having ischemia in their genesis. Ozone can be administered as mono-ozone-therapy and in a complex treatment.