The urgent task of modern medicine is to improve the prevention and quality of treatment of degenerative-dystrophic diseases first of all by non-pharmacological methods. It is well established, that the laser radiation in addition to non-specific biostimulating action slows down destructive processes in particular cartilage of patients with osteoarthritis. The purpose of this study was to compare the effect of pulsed and continuous infrared low-energy laser radiation (IR LELR) on the state of microcirculation for the patients with knee joint osteoarthritis of the 1st-2nd degree. We examined 60 patients with knee joint osteoarthritis of 1st-2nd degrees aged from 50 to 75 years. All patients were divided in two groups. In first group (30 persons) patients were exposed to IR LELR in pulsed mode with pulsed power 10 W, and a pulse frequency 80 Hz. In the second group (30 persons) patients were exposed to IR LELR in continuous mode with output power 15 mW. For all patients laser treatment was performed to the projection area of articular fissures of knee joints. Time of the procedure was 4 min. for the treatment area (two areas), 10 daily procedures for the treatment course. In the present study we estimated the status of the capillary blood flow, based on data Laser Doppler Fluometry (LDF) method, using Laser Analyzer of capillary blood flow (LAKK-01). Tests were conducted on the skin of anterior surface of knee joint in the prone position, ambient temperature 20°C. LDF tests showed some malfunctioning of the microcirculation mechanism for all patients. These data allowed dividing all patients into two groups according to the type of microcirculation malfunctioning: – first group (92%) – hyperemic type microcirculation – second group (8%) – normal-circulatory type microcirculation. After the course of IR LELR treatment for all patients with hyperemic microcirculation type positive dynamic LDF data was indicated, but more significant changes for LDF parameters were shown for the group of patients treated with pulse mode IR LELR. Reliable increase was found in the initially reduced tone of the arterioles (ALF/CKO×100%) for 49% (<0.001) in the first group of patients, and for 34% (p < 0.001) in the second group. Along with this, we observed reduction of the parameter, characterizing the contribution of pulse oscillations in the overall level of floxosomiasis for 35% (p < 0.05) and for 29% (p < 0.05) respectively for groups. Based on the performed research it was found that pulse mode IR LELR for patients with osteoarthritis of knee joints is much more effective, comparing to continuous mode IR LELR.