

length necessary for the surgical sleep to begin for 7 days.

Results: the peritoneal resorptive function research experimental model application defined that the time of physiological resorption made $5,15 \pm 0,89$ min in the intact animals. The resorption at the various intensity operational traumas made: in the **1 group**: 1 day - $9,8 \pm 0,5$; 2 day - $8,2 \pm 0,7$; 3 day - $7,1 \pm 0,7$; 4 day - $5,8 \pm 0,7$; **5 day** - **$5,2 \pm 0,5$** ; 6 day - $5,1 \pm 0,7$; 7 day - $5,1 \pm 0,5$; in the **2group**: 1 day - $10,1 \pm 0,6$; 2 day - $9,0 \pm 0,5$; 3 day - $7,8 \pm 0,6$; 4 day - $6,8 \pm 0,4$; 5 day - $6,1 \pm 0,4$; **6 day** - **$5,1 \pm 0,4$** ; 7 day - $4,8 \pm 0,7$; in the **3group**: 1 day - $11,3 \pm 1,0$; 2 day - $9,3 \pm 1,7$; 3 day - $8,3 \pm 0,7$; 4 day - $7,3 \pm 0,5$; 5 day - $6,5 \pm 0,5$; 6 day - $5,8 \pm 0,4$; **7 day** - **$5,1 \pm 0,4$** .

Conclusions: So, the peritoneum responses to the operational trauma in the form of the peritoneal resorptive function inverse decline, a direct dependence of functional disorders' degree on the operational trauma' intensity being found out.

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THE GROUND IN DETERMINING LOAD DISTRIBUTION ON KNEE-JOINT

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Knee-joint arthrosis is the commonest pathology in locomotive apparatus. The key factor in the development of the disease is uneven load distribution on a knee-joint due to individual anatomical structure

and disorders in biochemical parameters of a lower limb.

The aim of the study is to create a new method of determination of load distribution due to individual topographic and anatomical distinctions of lower limbs.

The method developed is based on computer transformation of topographic-anatomical distinctions and a combined application of medical visualization and orthopedic diagnostics. Our method is patented.

The first phase of the research is to construct a primitive load to simulate the model of a human body load. The second phase consists of determination of resultant force vector affecting a knee-joint. The vector direction depends on individual anatomico-biochemical characteristics of lower limbs. The last phase is devoted to construction of force distribution affecting a knee-joint along the surface, which individuality is determined according to computed and magnetic resonance tomographies. The apparatus-program complex for the determination of individual load distribution along a knee-joint was devised according to the method proposed.

Therefore, if to apply load distribution, the method makes it possible to forecast arthrosis development, treatment plan and pathology prevention. The grounds for surgical correction of axial deformation in the lower limbs to make load distribution normal also occur.

Possible application:

1. Diagnosis, treatment plan, pathology prevention;
2. Correction of axial lower limb deformation;
3. Individual endoprosthesis;
4. Orthopedic footwear fitting;
5. Sport medicine.

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