

## METAMIZOLE SODIUM CHRONORHYTHM STUDY

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Modern chronopharmacology allows using already known drugs much more effectively and helps to reduce the probability of adverse reactions' occurrence. One of the chronodependent problems is the feeling of pain.

In this research we investigated chronodependence of the feeling of pain from the time of day and chronoportrait of metamizol sodium. Pain sensitivity was assessed by the tail-flick latency period in seconds. Metamizol sodium was administered 30-40 minutes before to the specified test. During this chronoresearch it was revealed that there are 3 acrophases of minimal sensitivity to pain in the morning and afternoon. In the evening there is an increased sensitivity to painful stimulus and at night there are two acrophases when the sensitivity to pain decreases.

In the study of the metamizol's sodium effectiveness we found that its maximal analgesic effect is manifested in the form of 2 or 3 acrophases of reducing pain sensitivity. This medicine has the highest activity when it administered in the evening. Also rather high activeness of the metamizol sodium was observed at night and in the morning. The lowest activity of the metamizol sodium was observed in the afternoon.

Thus, the results of metamizol's sodium chronopharmacological research demonstrate the necessity of the development of new nonopioid analgesic regimens in order to improve its effectiveness and safety.