

In severely malnourished individuals whose energy intake from food was low for an extended period, the sudden restoration of nutrition could cause a rapid decrease in serum electrolyte levels, which can be life-threatening. This phenomenon is called the refeeding syndrome (RFS) and it is particularly noticeable in the introduction of the refeeding process and the administration of artificial nutrition. In the prevention of RFS it is necessary to correctly set the initial nutrition, carefully monitor the patient's health status and the development of serum electrolyte levels, particularly phosphorus, potassium, and magnesium. It is advisable to supplement lacking micronutrients, in particular vitamin B₁. In my thesis I focus on practical procedures at the beginning of refeeding and observe the development of the health status of patients in the first five days of nurturing. The aim was to develop a refeeding procedure for people at high risk of RFS and verify its use in clinical practice. The research was based on predetermined selection criteria. Three eligible patients in different clinical status who met the criteria were chosen. Attending physicians were familiar with the recommended procedure of refeeding which served as a guide for the application of the specific nutrition products. All three patients tolerated only parenteral nutrition and we were able to precisely define the composition of nutrients and keep track of daily intake. Practice showed that the patients were fed without complications, although the energy levels in the first few days of refeeding were higher than originally planned. There were no major fluctuations in serum electrolyte levels, which remained within physiological limits. Therefore the feeding could be increased without worry. A possible explanation for the success of the refeeding process is the intensive supplementation of potassium, magnesium, and phosphorus in particular.