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Myokines, physical activity, insulin resistance and autoimmune diseases.

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Highlights

- More than one hundred myokines have been identified, and among them are IL6, myostatin, irisin, mionectin and decorin.
- Some myokines, including irisin, are responsible for many autoimmune diseases such as idiopathic inflammatory myopathy, rheumatoid arthritis, systemic lupus erythematosus and inflammatory bowel disease.
- Myokines by mean of their antiinflammatory effects on the muscle itself can counteract the induction of insulin resistance and the loss of muscle mass characteristic of many autoimmune diseases.
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Abstract

Myokines are peptides produced and released by myocytes of muscle fibers that influence physiology of muscle and other organs and tissues. They are involved in mediating the beneficial effects that exercise has on health. More than one hundred have been identified and among them are IL6, myostatin, irisin, mionectin and decorin.

Physical inactivity leads to an altered response of the secretion of myokines and resistance to them; this leads to a pro-inflammatory state that favors sarcopenia and fat accumulation,

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