Rheumatoid arthritis (RA) is a systemic inflammatory disease of a chronic nature that is characterized primarily by a pattern of involvement of the synovial joints. The inflammatory process may involve soft tissues such as tendons, ligaments and muscle, and it may invade the bone.

The cause of the disease remains uncertain; suspected reasons include immune disturbances and infectious causes.

There is some evidence that rheumatoid arthritis is an allergic reaction. A chemical response in the body leads to the injury and inflammation of the joint tissues.

The effects of rheumatoid arthritis are more readily identified. The joint synovium becomes damaged and inflamed. The inflammatory materials stimulate the tissues to swell up, the blood circulation is disturbed, the local tissue is anoxic (lacks oxygen) and the cell metabolism to slow.

Hypoxia, or lack of oxygen, is evident in rheumatoid arthritis. The causes of hypoxia have been identified as:

- Increased demand for oxygen by an inflamed joint.
- Decrease of blood flow to the joint by raised intraarticular pressure.

It is found that Hyperbaric Oxygen Therapy (HBOT) is markedly superior to the routine treatment of Rheumatoid Arthritis. It has become a standard of practice in many countries.

Clinical practice has proved that HBOT has good effects on repercussion, analgesia lowering blood sedimentation, stabilizing immunologic function and strengthening the body resistance to eliminate pathogenic factors, and is beneficial to the repair of the diseased joints.

Hyperbaric Oxygen Therapy has actually been found to inhibit the development of the disease process. HBOT can suppress inflammation due either to immune factors or infections. Moreover, daily HBOT suppresses the inflammatory response even if given when the arthritis is fully developed; however, the treatment of RA with HBOT is more effective in the early stages of the disease.

Hyperbaric Oxygen can make the body produce peroxides to limit many kinds of enzymes. HBOT can make the blood oxygen partial pressure increase, ten times. The delivery of oxygen to tissue makes the circulation better and the state of local ischemia (lack of blood flow) and anoxia (lack of oxygen) is corrected. The metabolism is strengthened. All these effects are beneficial to removing the joint swelling.

Nowhere has hyperbaric Oxygen been more actively advanced in treating rheumatoid arthritis than in Europe and Asia.

In 1995, the Proceedings of the Eleventh International Congress on Hyperbaric Medicine published the results of one particular study. These results indicated the effect of Hyperbaric Oxygen on the disease.

- Cured 23.4%
- Obvious effect 51.4%
- Improvement 16.2%
- No effect 8.1%
The total summarized effective rate of Hyperbaric Oxygen in treating rheumatoid arthritis was 91.9 percent. The authors of the study concluded: “In the treatment we find that Hyperbaric Oxygen is markedly superior to the routine treatment. Its advantages are as follows: 1. the repercussion of the joint is fast, the effect of analgesia is good; 2. the curative and obvious rate is high.”