

# A Study on the Effect of Yogic Intervention on R A Factor in Gout Patients

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## Abstract

**Objective:** The present study was aimed to investigate whether Yogic practices yields any positive change in R A factor there by promoting the physiological health state. **Subjects:** 80 patients suffering with Gout in the age group of 30-70 years were selected on random basis and divided into two groups, each containing 40 subjects. The first group of 40 subjects named 'experimental group' was exposed to selected Yoga practice module for 50 minutes once a day for 120 days and second group of 40 subjects, named 'control group' live their routine life. **Method:** On the first day of experiment the subjects were recorded their blood report and same repeated after 120 days. **Results:** the experimental group of subjects show an improvement in the variable but no such difference was there in control group. **Conclusions:** Yogic practice yields positive change in R A factor in the Gout patients.

**Keywords:** Asana, Pranayama, Meditation, Shatkarma and R A factor.

## Introduction

Gout is a kind of arthritis that occurs when uric acid builds up in blood and causes joint inflammation. Acute gout is a painful condition that typically affects one joint. Chronic gout is repeated episodes of pain and inflammation, which may involve more than one joint. Gout is caused by having higher-than-normal levels of uric acid in your body. This may occur if: Your body makes too much uric acid or Your body has a hard time getting rid of uric acid

If too much uric acid builds up in the fluid around the joints (synovial fluid), uric acid crystals form. These crystals cause the joint to swell up and become inflamed.

Gout (also known as *podagra* when it involve the big toe) is a medical condition usually characterized by recurrent attacks of acute inflammatory arthritis a red, tender, hot, swollen joints. The metatarsal phalange joint at the

base of the big toe is the most common affected in around half of all cases. Gout is a metabolic disorder characterized by *hyperuricaemia* (normal plasma urate 1-4 mg/dl)

Gout may run in families. It is more common in men, in women after menopause, and those who drink alcohol. People who take certain medicines, such as hydrochlorothiazide and other water pills, may have higher levels of uric acid in the blood.

The condition may also develop in people with: Diabetes, Kidney disease, Obesity, Sickle cell anemia and other anemias like Leukemia and other blood cancers. The condition may occur after taking medicines that interfere with the removal of uric acid from the body.

Gout can present in a number of ways although the most usual is a recurrent attack of acute inflammatory arthritis (a red, tender, hot, swollen joints). Other symptoms that may occur along with the joint pain include fatigue and a high fever. *Hyperuricaemia* is the underlying cause of gout. This can occur for a number of reasons including dietary, genetic or under excretion of urate, the salts of uric acid.

The practice of yoga goes beyond exercise. Special postures and breathing techniques are almost always part of the process; in fact, some forms of yoga focus primarily on breathing, and therefore overlap with traditional breathing practices generally known as pranayama. Yoga usually involves some form of meditation, can include chanting, as well as philosophical and religious introspection. However, completely secular versions of yoga are widely available as well.

Dash, M., and S. Telles. . *Indian Journal of Physiology and Pharmacology* (2001) Improvement in hand grip strength in normal volunteers and rheumatoid arthritis patients following yoga training yoga practice improves hand grip strength in normal persons and in patients with rheumatoid arthritis, though the magnitude of improvement varies with factors such as gender and age.

Garfinkel, M., and H. R. Schumacher, *Rheumatic Diseases Clinics of North America* (2000) two limited studies of in osteoarthritis of the hands and carpal tunnel syndrome show greater improvement in pain than in control groups.

Deborah Litman, MD, (1994), a clinical assistant professor in the division of rheumatology at the Georgetown University School of Medicine, is a strong proponent of exercise (though it's not listed as an alternative treatment) in the treatment of arthritis.

I Haslock, R Monro, R Nagarathna, H R Nagendra, N V Raghuram, (1994) find that people with rheumatoid arthritis who participated in a yoga program over a three-month period had greater handgrip strength compared with those who did not practice yoga. The researchers reported that arthritis sufferers who practiced yoga showed a significant improvement in pain, tenderness, and finger range of motion for osteoarthritis of the hands.

### **Material and Methods**

80 patients suffering with Gout in the age group of 30-70 years were selected on random basis and divided into two groups, each containing 40 subjects. The first group of 40 subjects named 'experimental group' was exposed to selected Yoga practice module for 50 minutes once a day for 120 days and second group of 40 subjects, named 'control group' live their routine life. Method: On the first day of experiment the subjects were recorded their blood report and same repeated after 120 days.

A set of Asana, Pranayama, Meditation and Shatkarma were introduced to the practice group and the procedure was as follows:

Table 1. – Yogic Intervention introduced to the subjects

<b>Sr. No</b>	<b>Practice</b>	<b>Physical Awareness</b>	<b>Rounds</b>	<b>Duration</b>
1	Tadasana	Spine	5	120 sec.
2	Tiryak Tadasana	Wastes	5	120 sec
3	Kati chakrasana	Scapulas	5	120 sec
4	Surya Namaskar	All internal organs	2	180 sec
5	Shavasana	Whole muscles	-	300 sec

6	Kapalbhati	Abdomen	100-150	120 sec
7	Nadisodhan	Eye brow Centre	5	240 sec
8	Ujjai	Throat region	10	240 sec
9	Bhramari	Brain region	10	240 sec
10	Om chanting	Whole Head region	-	120 sec
11	Laghu Sankha Prakshalana	Abdomen	Weekly	45 Minutes

**Result:**

Table 2 Showing the effect of Yoga on RA factor in Gout patients:

	<i>Experimental</i>	<i>Control</i>
Mean	22.7	32.875
Variance	119.5487	163.9583
Observations	40	40
Hypothesized Mean Difference	0	
df	76	
t Stat	3.82193	
P(T<=t) one-tail	0.000135	
t Critical one-tail	1.665151	
P(T<=t) two-tail	0.000269	
t Critical two-tail	1.991673	

**Discussion & Conclusion:**

Result shows a significant change in RA factor between experimental and control group of patients suffering with Gout. As shown in the result table. However Gout is a metabolic disorder characterized by hyperuricaemia ( normal Plasma urate 1-4 mg/dl).acute gout manifests as sudden onset of severe inflammation in a small joint (commonest is matatarso-phalangeal joint of great toe )due to precipitation of urate crystals in the joint space. The joint becomes red, swollen and extremely painful (Kasper et al.,2005).

Practice of Yoga not only regulates the metabolic functions of the body with Asana Pranayama, it also removes the by-products of the body through the help of Shatkarma. As its a well known fact that overall effect of the Yogic practices improves the movement of the joints, and improves the immunity through reducing the stress, it will reflect into the Uric acid level and Ra factor of the Gout Patients practicing Yoga. Results with the previous researches done by Dash, M., and S. Telles (2001) and Garfinkel, M., and H. R. Schumacher (2000) also support our study.

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