

# WHITE PAPER: PEER-REVIEWED PUBLISHED CLINICAL STUDY SHOWED ORAL INTAKE OF GOLD FACTOR® IMPROVED KNEE JOINT HEALTH AND FUNCTION\*

Lawry Han, PhD, FACN and David Vollmer, PhD

4Life Research, Sandy, Utah

## OBJECTIVE

The purpose of this study was to evaluate the safety and efficacy of Gold Factor in improving knee joint health and function.\*

## BACKGROUND

As you age, so do your joints. In 2006, the Centers for Disease Control and Prevention (CDC) estimated 20% of the population experienced knee joint problems. Since the CDC's survey, the numbers have increased, especially in aging populations. Pain, inflammation, mobility, and flexibility issues all contribute to joint problems and can be triggered by one's lifestyle.<sup>1</sup> Gold particles have been shown to be a safe, potent, and effective agent. Two recently published clinical studies showed that intra-articular injection of gold particles for osteoarthritic patients improved their Knee injury and Osteoarthritis Outcome Score (KOOS) and Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC) scores, and induced robust immunomodulatory effect in both synovial fluid and serum.<sup>2,3</sup>

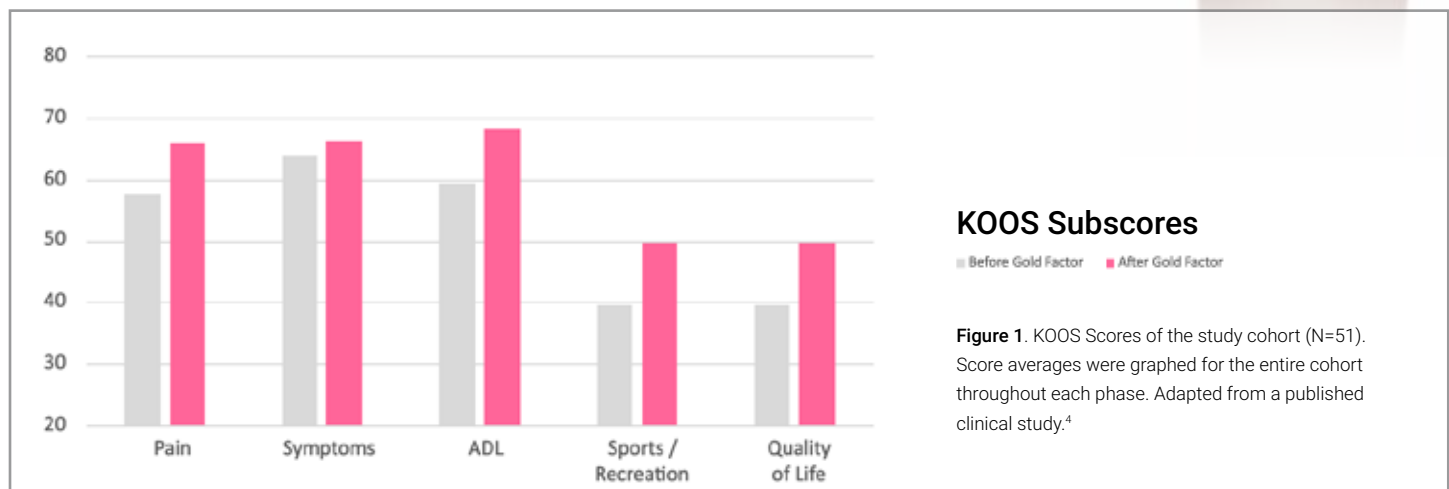
Injection of gold particles, though effective, can be invasive and inconvenient for a lot of users, and therefore not suitable for daily use. Gold Factor contains a delicate suspension of ultra-fine gold particles in ultra-pure water. Gold Factor is completely unique, so this clinical study was undertaken to evaluate the safety and efficacy of 2 oz per day of Gold Factor in improving knee joint health and function.\*

## STUDY DESIGN

A total of 51 participants (24 male and 27 female, age  $62.1 \pm 13.1$ ) were studied for 20 weeks through a three-phase clinical study. Measurements were taken at four timepoints: before the start of Phase 1 (referred to as T0) and at the end of each phase (referred to as T1, T2, and T3, consecutively). Subjective measurements were collected through a KOOS survey and a clinic survey. Objective measurements were collected by a physician and two registered nurses who conducted physical examinations of each study subject. Participants also completed a physical therapy assessment with a registered physical therapist. C-reactive protein (CRP) levels in blood were also measured.\*

## STUDY FINDINGS

**KOOS:** The KOOS survey is divided into five categories: pain, symptoms, function in activities of daily living (ADL), function in sports and recreation, and quality of life. Higher scores indicate better joint health and function. In all KOOS categories, study participants experienced increased KOOS scores while taking Gold Factor and decreased KOOS scores when not taking Gold Factor.\* (See Figure 1).



### KOOS Subscores

■ Before Gold Factor ■ After Gold Factor

**Figure 1.** KOOS Scores of the study cohort (N=51). Score averages were graphed for the entire cohort throughout each phase. Adapted from a published clinical study.<sup>4</sup>

**Clinic Survey:** Seventy-one percent of all participants experienced improvement in their knee pain, and 61% experienced improvement in their knee stiffness. Seventy percent of all participants indicated that they would love to continue taking Gold Factor even after the study ended.\*

**CRP:** As CRP levels are biomarkers of systemic inflammation, a decrease in CRP levels was expected when participants took Gold Factor. While not taking Gold Factor, 64% of participants experienced an average increase in CRP levels of about 0.5 mg/L. While taking Gold Factor, 50% of participants experienced an average decrease of 0.58 mg/L in their CRP levels.\*

**Physical Therapy:** Study participants showed statistically significant improvements in two specific exercises: sit-to-stand and single-leg squats. Participants saw an increase in completed repetitions of leg presses and distance covered during a six-minute walk on a treadmill while taking Gold Factor daily.\*

**Physical Exams:** While taking Gold Factor daily, participants saw improvements in these areas: pain with range of motion, knee grinding, patellar tracking, and joint line tenderness.\*

**Safety:** No adverse effect was found.

## CONCLUSION

The first of its kind, this clinical study showed that Gold Factor improved knee joint health and function, with specific improvements in knee joint pain and symptoms, daily activities, quality of life, and knee-related exercises and functions. With its great safety and efficacy, this study opens the way for the use of Gold Factor to improve joint health and function for both average and athletic users.\*

1 <https://openorthopaedicsjournal.com/VOLUME/7/PAGE/619/>

2 <https://pubmed.ncbi.nlm.nih.gov/33404700/>

3 <https://pubmed.ncbi.nlm.nih.gov/35076138/>

4 <https://www.mdpi.com/2411-5142/7/3/52>

\*THESE STATEMENTS HAVE NOT BEEN EVALUATED BY THE FOOD AND DRUG ADMINISTRATION. THIS PRODUCT IS NOT INTENDED TO DIAGNOSE, TREAT, CURE, OR PREVENT ANY DISEASE.