



**CALIFORNIA STATE SCIENCE FAIR
2016 PROJECT SUMMARY**

Name(s) Sakhi G. Patel	Project Number J1918
Project Title Effectiveness of Turmeric in Relieving Arthritis Pain	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals The objective of this study is to test the effectiveness of turmeric in relieving arthritis pain.</p> <p>Methods/Materials *In this study, the materials used were 20 arthritic people, a month supply of turmeric tablets(Nature's Bounty, 450 mg) per subject, and an arthritis pain level questionnaire(WOMAC) per subject. *First, each of the 20 test subjects were given a WOMAC questionnaire to assess the severity of arthritis pain. *Next, the subjects were divided into two equal groups: an experimental group and control group. *The subjects in the experimental group were given a month's supply of turmeric capsules and were asked to take one capsule daily for a month. The control group was asked to be strictly compliant with their existing medications and to avoid any strenuous activity for a month. *Both groups were told that the procedures they followed for the month would help their arthritis pain. The subjects were contacted weekly for the duration of the month. *At the end of the month, all 20 test subjects were given the WOMAC questionnaire again. Finally, the two questionnaire scores were compared and a conclusion was formed.</p> <p>Results After studying the effects of turmeric capsules on arthritis pain, turmeric proved to be strongly effective in treating arthritis pain. According to the WOMAC questionnaires, the experimental group had an average pain decrease of 22 percent. On the contrary, the control group had little to no changes in their arthritis pain.</p> <p>Conclusions/Discussion This study proves that turmeric is effective in relieving arthritis pain. Many of the test subjects in the experimental group reported having a reduction in arthritis-induced inflammation. Some subjects even reported not needing their arthritis medications because turmeric stopped the majority of their pain and inflammation. Others reported relief from other ailments as well, including sinus infection and night cramps. Turmeric is also proven to be an outstanding liver cleanser, that can reverse some of the damage done by prescription or over-the-counter pain medicines over time.</p>	
Summary Statement This project tests to see if turmeric can help to relieve arthritis pain.	
Help Received A local pharmacy provided the turmeric capsules free of charge. Besides this, all the experiments were performed myself.	