CALIFORNIA STATE SCIENCE FAIR
2011 PROJECT SUMMARY

Name(s)

Neelesh "Neel" K. Karody

Project Number

J2116

Project Title

Effectiveness of Balance Bracelets: A Double Blind Study

Abstract

Objectives/Goals

The objective of this experiment was to investigate the validity of the claims of the XPB Balance Bracelet Companythat using this bracelet immediately improves user#s strength,balance,and flexibility. All tests repeated three times each, in random order with test bracelet, placebo,and no bracelet (control). Readings were recorded by the participant#s father to maintain double blind nature of experiment.

Methods/Materials

Using Saehan Brand Grip and Pinch Dynamometers,stopwatch, a six foot measuring tape, and test and placebo bracelets thirty subjects were tested for strength, flexibility, and balance as follows. All tests were conducted with subjects standing barefoot on a tiled floor with eyes closed with thirty second rest periods between each repetition of each test. Conducted T test analysis of all readings.

1.Grip strength measured with subject holding dynamometer in dominant hand with arm close to the body elbow flexed to 90 deg. Grip strength measured by subjects squeezing dynamometer. The test was repeated three times each, in random order with the test bracelet, placebo bracelet, and no bracelet (control). Readings were recorded by the participant#s father to maintain a double blind nature of the experiment.

2.Pinch strength measured with subject holding dynamometer in dominant hand with arm against body elbow flexed ninety degrees.

3.Hamstring flexibility tested by the subject#s ability to touch ground by bending at the waist measuringdistance between third digit of dominant hand and ground.

4.Balance measured with subject standing on one leg starting with the left and balance maintainance in a single leg stance was timed.

Results

Results showed there was minimal to no difference between the control,test,and placebo.

Conclusions/Discussion

After analyzing the results,it can be concluded that the hypothesis,that XPB Balance Bracelets do not work can be accepted.

Summary Statement

To test XPB Balance Bracelet's claim of instant improvement in strength flexibilty and balance.

Help Received

Father recorded the results to maintain double blind nature of the experiment. Mother provided the instruments for the experiment. Parents helped explain statistics and any questions I had.