

Performance enhancing drugs: expected results and undesirable side- effects

[Health & Medicine](#), [Addiction](#)



Performance enhancement happens every day. Effects of enhancers can be associated with active ingredients or inventions, and to the placebo phenomenon. The two changes connected to placebo effects are changes directly available to positive expectations and conditioned responses. The effects of the active drugs could possibly be reversed or modified by negative expectations and learned reactions. Properties of the agents such as shape, size, or color, can also produce placebo reactions. Warm colors act as a stimulus and cold colors have a calming effect on a person's mind, these may appear as symptoms. Placebo-reaction can occur outside of the medical setting. The aim of the study was the relationship between nine nutritional supplements that focus on endurance, strength, and concentration, and the consistency of the supplements. Researchers also looked for a link between the past experience with the enhancers and the expected effectiveness.

Method

To participate in the research a person had to be regularly active or participate in a sport in the past 12 months. There were 95 men and 172 women with the average age of 20 years old that had similar backgrounds, participated in almost nine hours of physical activity per week, and gave consent to participate. Their assignment was to put the nine images of unbranded nutritional supplements in ranking order according to the expected effectiveness. The nine images were green and red drinks, white and red pills, white powder, a white caplet, an energy bar, green gel, and white lotion. These images represented similar "over the counter" nutrition supplements. The participants were asked if they had ever used a similar

supplement, and to not relate any of the images to commercially known products. They ranked the supplements on strength, endurance, and concentration, and had an unlimited amount of time to make their decisions. The data obtained from the study was uploaded into the SPSS statistical software for analyses.

Results

When asked if they had ever used a supplement that resembles the picture 93.6% of the participants said yes. To test the statistical differences in the expectancy of effectiveness with the three performance types the researchers used Friedman tests. The results of the tests showed a significant difference emerge between the white lotion, white powder, green gel, and the energy bar. There was no contrast between the other five characteristics. After analyses, there were no important results for endurance and strength, but there was a similarity between the characteristics and past experience with the related form of supplement for concentration.

Discussion

The results show that people believe that different types of supplements have a different effect on enhancing strength, endurance, and concentration. The green and red drinks, red pill, white powder and white capsule were seen as endurance supplements, while green gel and white lotion were thought to relieve pain, not enhance endurance. The energy bar and green drink ratings were exceptionally higher than that of the “white stuff”. Color has a major effect on the perception of effectiveness. The least alluring

choices for enhancing concentrations, endurance and strength would probably be the gels and lotions. There were low ranking agreements between participants due to different beliefs and experiences. Limitations in the study include: a 'forced choice' scale, nine hours of physical activity may not be enough to represent the elite athletic population, and the nine agents may not represent all available enhancers. Use of real, branded supplements is highly recommended for future studies. According to the research results the expected effectiveness of the nutritional supplement depends on the form and color of the supplement, and directly correlates with how a person would choose an enhancing agent for themselves.