

# New ProArgi-9+ Study

A new ProArgi-9+ study, conducted at the High Desert Heart Institute in Victorville, CA, measured the effectiveness of L-arginine on lactic acid buildup during high-intensity exercise.

## What is Lactic Acid?

Lactic acid, known as lactate, is a natural byproduct in the body when there is insufficient oxygen present during energy (ATP) synthesis. This is most noted by a burning sensation in the muscles during high-intensity exercise. This serves as a natural defense mechanism for the body, as it prevents permanent damage during extreme exertion where an oxygen deficit is present.

The presence of lactic acid in tissue leads to muscle fatigue and decreases muscle performance.

## Study Design

Siva Arunasalam, M.D., President and attending cardiologist at the High Desert Heart Institute, selected a test group consisting of 10 healthy subjects, ranging from 22-60 years of age.

*Hypothesis:* If L-Arginine increases muscle blood flow, then there will be less lactic acid accumulation. The result of less lactic acid accumulation would therefore increase endurance and decrease muscle recovery time.

The L-arginine supplement chosen for this study was ProArgi-9+ Active.

All subjects participated in exercise that required maximum output, with and without ProArgi-9+ Active. The subjects who did not take the supplement prior to exercise were identified as the control group.

Lactic acid was measured at four different intervals; pre-workout, immediately post-workout, 15 minutes post-workout, and 30 minutes post-workout.

When ProArgi-9+ Active was consumed, the supplement was administered 60 minutes prior to exercise.

## Study Results

The results of the study were significant for healthy individuals who participate in vigorous, high-intensity exercise and consume ProArgi-9+ Active.

Graph 1

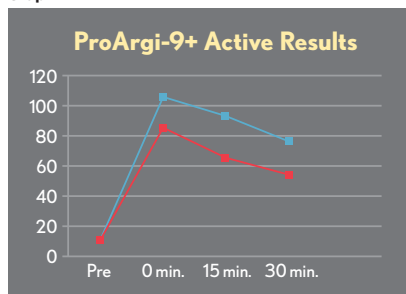


Table 1

Subject	Control (min)	ProArgi-9+ Active (min)
1	18	23
2	29	36
3	40	46
4	20	25
5	9	11
6	9	11
7	28	32
8	14	17
9	56	64
10	39	43



As noted in graph 1, the control group experienced a significantly larger buildup of lactic acid immediately following exercise, 15 minutes post-workout, and 30 minutes post-workout.

Within the hypothesis, Dr. Arunasalam stated that if less lactic acid accumulation was the result, then endurance would also increase.

Outlined in table 1, Dr. Arunasalam's endurance hypothesis proves valid. In fact, it was observed that subjects, who consumed ProArgi-9+ Active 60 minutes prior to exercise, were able to workout at maximum output 15% longer than the control group.

Dr. Siva Arunasalam further explained that while this study focused on the use of ProArgi-9+ with healthy individuals during high-intensity exercise, the use of this product can provide a similar benefit for people of all activity and health levels.

For individuals just starting to exercise, lactic acid will build up sooner and quicker than those who have been consistently active for an extended period of time. By using ProArgi-9+, L-arginine will optimize blood flow to the muscles and as a result, enhance activity, increase endurance, and decrease muscle recovery time.