

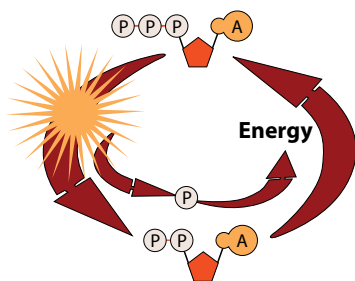
PEAK^{ATP}

ATP: THE CORE SOURCE OF HUMAN ENERGY

PEAK ATP® is the revolutionary source of energy to add to your company's product line — because the body can't do without it!

WHAT IS ATP?

PEAK ATP is a proprietary nutraceutical ingredient, which provides the same molecule the human body uses to create energy, athletic performance, support organs such as the liver and is important for anti-aging. ATP is the body's major nucleotide that produces "explosive" chemical energy within cells. It is known as the "molecular currency" since it transfers energy within all cells of the body. The production of ATP occurs in the mitochondria of cells. In the body, ATP is made, utilized and then is recycled. Every day, the ATP molecule is recycled 2000 to 3000 times.



HOW DOES ATP PRODUCE ENERGY?

Every cell of the body has millions of chemical reactions that occur every second and most of them need energy from ATP to happen. To make "A" and "B" react together to make "AB" they need an enzyme to magnify the speed of the reaction. The enzymes used in these reactions can't "Reb Up" without the energy from ATP. The energy within the chemical bond of ATP can therefore be converted to other chemical bonds and also to mechanical energy as is the case in the activation of muscle function.

MARKET CATEGORY OPPORTUNITIES:

- Anti-aging
- Cardiovascular
- Energy
- Sports products
- Performance
- Recovery

ATP SUPPORTS ANTI-AGING

ATP Declines with Age

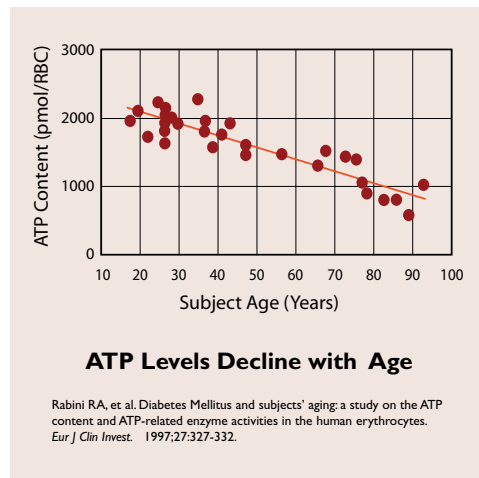
- ATP pools found within red blood cells decline by 50% at 70 years old in comparison to age 20.
- The synthesis of ATP in skeletal muscle is reduced by 50% from ages 38 to 68 years old. The decline of ATP synthesis in skeletal muscle is now acknowledged to be causal for aging.
- Improving skeletal muscle strength is the holy grail of anti-aging supplements.

These facts along with the failures of human growth hormone and sex steroids, provide a powerful incentive for developing an ATP product to provide support for the aging process.

When ATP Levels Decline in the Body, it is Associated with the Following Problems:

- A loss in wellness and vitality
- Reduced nutrient absorption
- Slower cellular and tissue regeneration
- Less efficient organ function
- Memory loss
- Lean muscle loss
- Reduced circulation to the periphery

These statements are based on I.V., I.M. studies.

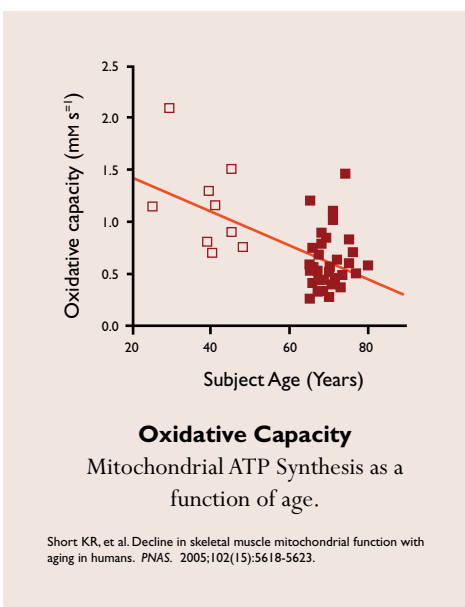


ATP SUPPORTS CARDIOVASCULAR HEALTH

- ATP is essential to the heart and its blood vessels. It is the universal energy source and controls all chemical reactions of the heart muscle tissue. The available amount of ATP influences the function of the endothelial tissue (inner walls of the arteries) and may affect the amount of plaque that develops in arterial walls.
- The aging process and/or reduced blood flow reduces ATP production in the heart. A greater amount of ATP leaks out of heart cells, than can be replaced causing ATP levels to decline.

ATP SUPPORTS SPORTS PERFORMANCE

- ATP becomes depleted in exercising muscle and it provides the energy needed for muscular work.
- ATP enhances the delivery of glucose, nutrients and oxygen to working and recovering muscles and helps provide an efficient mechanism for removal of catabolic waste products such as lactic acid.
- Clinical research shows that PEAK ATP increases blood levels of ATP.
- Individuals within the study groups taking PEAK ATP had muscular strength improvements.
- Individuals taking PEAK ATP consistently reported that they "felt better".



ATP SUPPORTS INDIVIDUALS WITH LOWER BACK PAIN DEMONSTRATED BY ORAL DOSE HUMAN CLINICAL STUDIES

Oral Doses of ATP Supports Individuals with Lower Back Pain

In 2005, a French study mentioned that physicians recommend oral ATP as an adjunct for people with lower back pain. The reason is that it has an “excellent safety profile” and is low in cost.

“...My strength and stamina started increasing immediately... no doubt this new ATP is working”

Terry Baldwin
ISSA Certified Trainer
Pro Bodybuilder
World Record Holder

Lower Back Pain Clinical Study with Oral Doses of ATP

Bannwarth B, et al. A randomized, double-blind, placebo controlled triphosphate in study of oral adenosine subacute lower back pain. *J Rheumatol.* 2005;Jun;32(6):1114-1117.

Randomized, double-blind, parallel group, placebo controlled clinical trial with 161 subjects taking either ATP 90 mg daily or placebo for 30 days.

The objective was to evaluate the efficacy and safety of oral adenosine triphosphate (ATP) in subacute lower back pain. The results of the study showed that individuals taking oral ATP had a significant reduction in pain after 7 days compared to the placebo group, but not at day 30. ATP may have an early acting effect in lower back pain. The ATP group had a significant reduction in the need for analgesics compared to the placebo and the oral ATP was well tolerated.

PEAK ATP® Lower Back Pain Clinical Study

Rossignol M, et al. Measuring the contribution of pharmacological treatment to advice to stay active in patients with subacute lower back pain: a randomized controlled trial. *Pharmacoepidemiol Drug Saf.* 2005; Dec;14(12):861-867.

Placebo-controlled and randomized with one segment double-blinded:

- The objective of this study was to assess the efficacy and safety of oral ATP. There were 157 patients with lower back pain randomly selected. The trial was multi-sited, with 132 participating primary care physicians and patients were from 12 centers located across France.
- The results showed that oral ATP increased the rate of improvement compared to the placebo after 90 days. At 90 days, in the oral ATP group, it was concluded that there was a threefold reduction in the risk of the condition being chronic or of long duration, which is an important objective with lower back pain. The study reported confirmation of the reduction in the use of analgesics (“rescue drugs”) in the ATP arm of (almost exactly) the same magnitude reported in the previous study, which is significant. This is impressive because the trials were multi-sited and randomized for ATP and placebo groups. One part of the trial was double-blinded and it included a large number of patients and physicians. This study also demonstrated that ATP was well tolerated with no adverse events (safe).

“No one would believe that I was taking ATP and not steroids to get my competitive physique.”

George Farah
IFBB Pro Bodybuilder

Health Benefits of PEAK ATP

- Has demonstrated a trend in elevating the body’s extracellular ATP levels.
- Helps to regulate vascular tone to reduce pulmonary and systemic vascular resistance without affecting arterial blood pressure or heart rate.
- Helps to improve vascular health.
- Aids in stimulating blood flow through the body.

PEAK ATP Clinical Study (Unpublished)

Zenk JL. A Prospective, Randomized, Double Blind Study to Evaluate the Effect of Orally Administered Adenosine Triphosphate on Peripheral Perfusion Pressure in Adult Men and Women. (2005; abstract unpublished)

Double-blind, placebo-controlled crossover trial randomized 12 healthy adults to each of three 1-day treatments.

- The objective was to evaluate the acute effect of a single oral dose of PEAK ATP on peripheral perfusion pressure and oxygenation in healthy adult men and women at a single time point one hour after dosing. A single oral dose of PEAK ATP 100 mg and 250 mg demonstrated trends in increased upper extremity perfusion pressure over a 1 hour period. 250 mg demonstrated increase in lower extremity perfusion pressure. 100 mg PEAK ATP demonstrates trends in improved oxygenation in upper and lower extremities. Improving oxygenation helps to increase the function of organs, tissues and cells, which helps athletic performance.
- PEAK ATP was shown to be safe and supportive to improve peripheral perfusion pressure and oxygenation.

PEAK ATP® DOSAGE

Research studies administered 90 – 150 mg PEAK ATP/day. Dr. Rapaport recommends an optimal dose for normal weight individuals of 200 – 250 mg PEAK ATP daily, on an empty stomach, in divided doses.

PEAK ATP DELIVERY SYSTEMS

Enteric, oral disintegrating tablets (ODT) and dry mix for drinks.

PEAK ATP SAFETY

- Does not adversely affect heart rate or blood pressure; not a stimulant.
- No adverse side effects produced in TSI experimental pilot or clinical trials.
- TSI LD50 (> 15 g/kg)
- Two randomized human clinical trials (162 and 157 subjects) taking treatment over 30 days.
- Global research confirms PEAK ATP's active compound is safe and non-toxic.

MARKETING RIGHTS

Dr. Rapaport:

- More than 30 years studying the physiological action of ATP
- Recognized expert in adenosine nucleotides
- TSI consultant
- Exclusive Rapaport license
- Eight issued patents, including U.S. Patents: #5,227,371 and 5,049,372
- Pending patent applications
- TSI patent pending technology
- Administration of ATP for reducing muscle fatigue and enhancing human performance
- Others pending

REFERENCES

1. Leij-Halfwerk S, et al. Adenosine triphosphate infusion increases liver energy status in advanced cancer patients: an in vivo 31P magnetic resonance spectroscopy study. *Hepatology*. 2002;35:421-424.
2. Agteresch HJ, et al. Pharmacokinetics of intravenous ATP in cancer patients. *Eur J Clin Pharmacol*. 2000;56:49-55.
3. Steinberg MH. Adenosine-5-monophosphate in venous insufficiency. *Angiology*. 1958;9:154-161.
4. Boller R, et al. Therapeutic action of muscle adenylic acid on ulcers and dermatitis associated with varicose and phlebotic veins; follow up report. *Angiology*. 1952; 3:260-266.
5. Dietrich HH, et al. Red blood cell regulation of microvascular tone through adenosine triphosphate. *Am J Physiol Heart Circ Physiol*. 2000;278:H2155-H2198.
6. Kichenin K, et al. Cardiovascular and pulmonary response to oral administration of ATP in rabbits. *J Appl Physiol*. 2000; 88:1962-1968.
7. Gonzalez-Alonso J, et al. Erythrocyte and the regulation of human skeletal muscle. Blood flow and oxygen delivery. Role of circulating ATP. *Circulation Research*. 2002;91:1046-1055
8. Agteresch HJ, et al. Beneficial effects of adenosine triphosphate on nutritional status in advanced lung cancer patients: a randomized clinical trial. *J Clin Oncol*. 2002;20:371-378.
9. Dagnelie PC, et al. Promising effects of adenosine triphosphate infusion on nutritional status and quality of life in advanced non-small-cell lung cancer: a randomized clinical trial. *Drug Development Research*. 2003;59:146-151.
10. Rabini RA, et al. Diabetes Mellitus and subjects' aging: a study on the ATP content and ATP-related enzyme activities in the human erythrocytes. *Eur J Clin Invest*. 1997;27:327-332.
11. Conley KE, et al. Oxidative capacity and aging in human muscle. *J Physiology*. 2000;526:203-210.
12. Short KR, et al. Decline in skeletal muscle mitochondrial function with aging in humans. *PNAS*. 2005;102(15):5618-5623.
13. Bannwarth B, et al. A randomized, double-blind, placebo controlled study of oral adenosine triphosphate in subacute low back pain. *J Rheumatol*. 2005;32:6.
14. Rossignol M, et al. Measuring the contribution of pharmacological treatment to advice to stay active in patients with subacute low-back pain: a randomized controlled trial. *Pharmacoepidemiology and Drug Safety*. 2005; online publication DOI: 10.1002.
15. Zenk JL. A Prospective, Randomized, Double Blind Study to Evaluate the Effect of Orally Administered Adenosine Triphosphate on Peripheral Perfusion Pressure in Adult Men and Women. (2005; abstract unpublished)



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