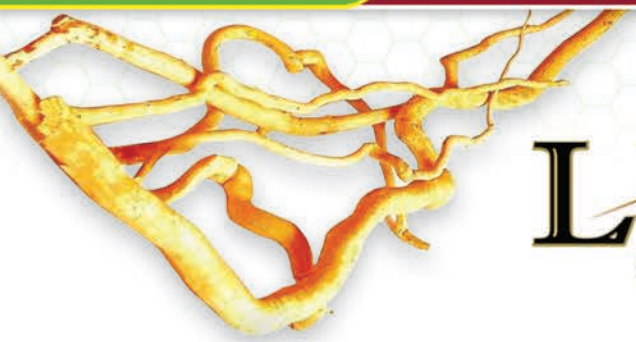


LJ100®

40% Glyco Saponins
22-28% EuryPeptides

The History of Eurycoma Longifolia …

Eurycoma longifolia is a medicinal plant found in South East Asia. It is commonly called Tongkat Ali or Malaysian ginseng, and is traditionally used as a general health tonic, adaptogen, and "anti-aging" remedy to help older individuals adapt to the reduced energy, mood, and libido that often comes with age. Decoctions of Tongkat Ali roots have been used for centuries as an aphrodisiac for loss of sexual desire and function, as well as to treat a range of ailments including post-partum depression, malaria, high blood pressure, and fatigue.

In modern dietary supplements, Tongkat Ali can be found in a variety of products intended to improve libido and sexual function, restore hormonal balance (cortisol/testosterone levels), enhance sports performance, weight loss, improve physical and mental energy, and overall quality of life.

Eurycoma longifolia contains eurypeptides, a 30-39 long amino acid chain, 4300 dalton molecular weight, that are known to have effects in improving energy status and sex drive in studies of rodents. Eurypeptides has been suggested as influencing the release of "free" testosterone from its binding hormone, sex hormone-binding-globulin (SHBG).

Patented, Standardized, Clinically Tested …

LJ100® is the only science based Eurycoma Longifolia extract, standardized to 40% Glyco Saponins, 28% Eurypeptides, 30% Polysacharides, and Eurycomanone. Eurypeptides is clinically proven at MIT for its androgenic properties. Created by the original researchers at MIT and University Malaya, this product has shown in human clinical trials - an ability to increase energy, enhance sport performance, promote anabolic state, and increase fat free mass. LJ100® is made from wild crafted Tongkat Ali root from the rainforest of Malaysia. It is produced using a patented extraction technology, with high temperature, high pressure, reverse osmosis water extraction method, ultra filtration process, and freeze dried technology without any filler. LJ100® is protected by a worldwide patent for treatment of sexual dysfunction and male fertility. (WO 02/17946 A1, US 7,132,117)

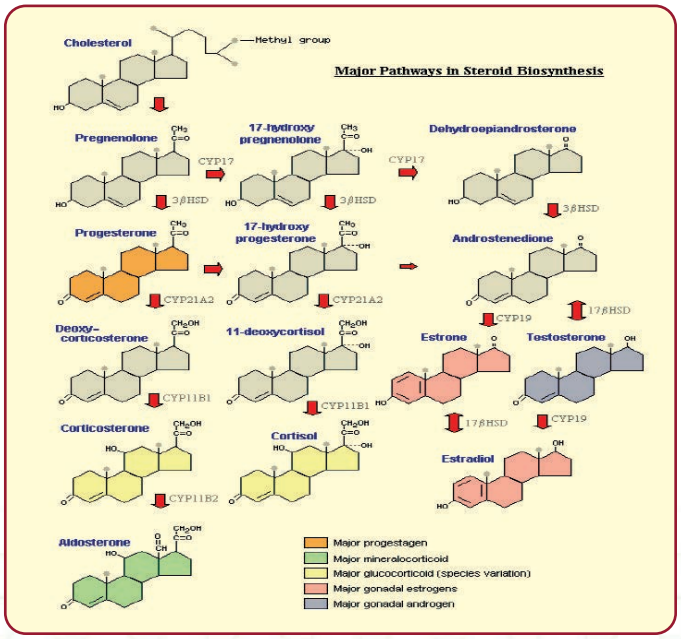
Benefits of LJ100®…

- *Enhance sports performance*
- *Promote anabolic state and reduce catabolic state*
- *Maintain normal high free testosterone level*
- *Maintain healthy cortisol level*
- *Promote overall wellbeing and hormonal health*
- *Enhance sexual function*
- *Reduce stress and improve mood state*

Mode of Action for Sport Nutrition …

Promote Androgen Biosynthesis

The Bioactive Eurypeptides in LJ100® significantly activate the CYP17 enzyme (17 α-hyroxylase/17,20 lyase), an enzyme involves in the early stage of steroid biosynthesis. In vitro study showed LJ100® to increase testosterone and progesterone significantly by 180% and 190% respectively. Low amount of pregnenolone also suggests that the Eurypeptides in LJ100® is actively converting pregnenolone to yield more DHEA, which is ultimately converted to testosterone.



Efficacy Findings from LJ100® Sport Nutrition Clinical Trials …

LJ100® enhance sport performance by increasing energy, promoting anabolic state, increasing free testosterone level while keeping cortisol low, increase DHEA, increase fat free mass, arm circumferences, and muscle strength.

The Ergogenic Effects of LJ100® British Journal of Sport Medicine 2003; 37: 464-470

Fourteen healthy adult males received either 100 mg/day LJ100® (28% Bioactive Eurypeptides) (n = 7) or placebo (n = 7) for 8 weeks. Simultaneously, both groups performed an intensive strength training programs.

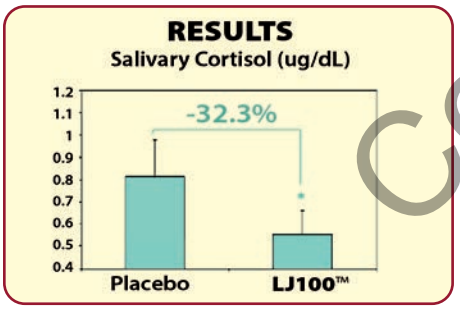
Results	Placebo100 mg/d		LJ 100 100 mg/d	
Parameters	Pre (mean + SD)	Post (mean + SD)	Pre (mean + SD)	Post (mean + SD)
FFM (kg)	52.44 ± 3.77	52.77 ± 7.18	52.26 ± 7.18	54.39 ± 7.43*
Fat Mass (%)	22.80 ± 2.43	21.33 ± 2.35*	31.30 ± 5.78	28.44 ± 6.43*
1 RM	77.29 ± 8.90	79.43 ± 8.83*	73.71 ± 8.90	78.71 ± 17.00*
Arm Circ.	29.8 ± 3.70	30.7 ± 3.86	30.87 ± 1.88	32.67 ± 1.96*
sEMG (µV)	127.95 ± 30.90	98.8 ± 50.10*	121.77 ± 40.0	90.47 ± 64.60*

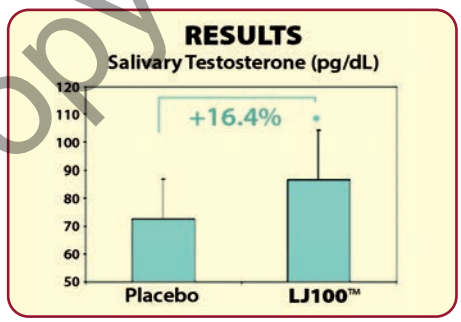
Results showed that the LJ100® group experienced significant increase in fat free mass (FFM), reduce body fat percentages (FM), increase gross muscle power (1RM), increase significantly arm circumference, and decrement in the mean sEMG reading. Suggesting that LJ100® might be use as ergogenic aid.

Effect of LJ100® on Anabolic Balance during Endurance Exercise

Journal of International Society of Sport Medicine 3 (1): S32 20060

Thirty Male subjects were recruited from a 24-hour mountain biking event; 15 were given 100mg of LJ100®, and 15 were given placebo. Saliva samples were collected before and after each lap. Subjects completed 4 laps and provided 8 saliva samples over a 24h period for measurement of cortisol and testosterone by enzyme immunoassay.





Cortisol levels were 32.3% lower in the LJ100® group compared to Placebo (0.552+0.665 versus 0.816+0.775 ug/dl, $P < 0.05$). Testosterone levels were 16.4% higher in the LJ100® group compared to Placebo (86.72+40.90 versus 72.47+33.77 pg/ml, $P < 0.05$).

LJ100® as a Potential Herbal Supplement for Physically Active Male and Female Seniors—A Pilot Study

Phytotherapy Research (2013)

13 physically active male and 12 physically active female seniors (57–72 years) were supplemented with 400mg LJ100® daily for 5 weeks. Treatment resulted in significant increases in total and free testosterone concentrations and muscular force in men and women. Total testosterone increase 15.1% in men and 48.6% in women; free testosterone increase 61.1%in men & 122% in women; muscular force increase 16.6% in men & 20.8% in women. Muscles were not being damaged by the exercise, as evidenced by the significant drop in Creatine kinase in both men & women. SHBG significantly decrease in women by 20.8%. The increase in free testosterone in women is thought to be due to the significant decline in sex hormone-binding globulin concentrations. LJ100® significantly increases the BUN (26.6%) and HGB concentrations (6.1%) in men.

Mode of Action for Men's Health . . .

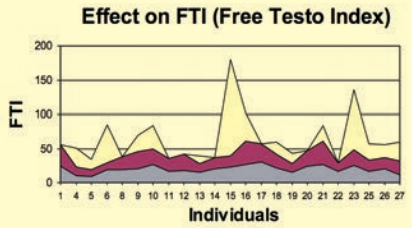
- *Inhibit Sex Hormone Binding Globulin, thereby increasing Free Testosterone*
- *Increase DHEA*
- *Increase cGMP and cAMP production, which caused relaxation in the smooth muscles which leads to erection*
- *An Alpha Pheromone: important in sexual communication, psychological and behavior*

Efficacy Findings from LJ100® Men's Health Clinical Trials . . .

LJ100® as a Potential Natural Energizer for Healthy Aging Men

First Asian Andrology , 2002

DHEA	Level Increase
At 1 Week	26%
At 3 Week	47%



30 male patients were given either 100mg of LJ100® for 3 weeks. Sexual Health Inventory Questionnaire (SHIQ) showed 62% having an increased or maximum score, showing increased sexual desire and sexual attempts. PADAM score demonstrated 82% showed improvement in total score suggesting improvement in sexual desire, erection, and psychological well being. DHEA increase from 26% to 47%, and SHBG decrease from 36% to 66% of subjects. Consequently, Free Testosterone level increase from 39% to 73% of subjects.

In another human clinical published on Asian Journal of Andrology, Oct 2006, 20 male volunteers of various health conditions from the ages of 38 to 58 were randomly given either 200,400,600 mg of LJ100® or placebo for 2 months. Majority of volunteers showed improvement in SHIQ and Aging Male score. Testosterone and DHEA increase to normal high levels at the end of treatment

LJ100® as Testosterone Booster for Men with Late-Onset Hypogonadism

First International Journal of Angrologia 2011

76 patients with late-onset hypogonadism (LOH) were given 200mg of LJ100® for 1 month. Results show that treatment with LJ100® significantly ($P < 0.0001$) improved the Aging Male Symptom score and serum testosterone concentration Prior to LJ100® treatment only 35.5% had normal testosterone levels, after the completed treatment 90.8% of the patients showed normal values. Mean serum testosterone also rose from 5.66nm to 8.31nm (46.8% increase). LJ100® is useful as a supplement for LOH and management of hypogonadism.

Parameter	Mean
AMS (before) (score)	38.05
AMS (after) (score)	23.67
Testosterone (before) (nm)	5.66
Testosterone (after) (nm)	8.31

Effects of LJ100® on Sexual Performance & Well-being in Men with Reduced Sexual Potency

In a randomized, double-blind, placebo controlled study, 26 men with mild erectile dysfunction were given either 200mg/day of LJ100® or placebo for 12 weeks. The LJ100® group demonstrated statistically significant ($p<0.05$) higher scores than placebo group at 12 weeks for: Erection Hardness Scale Score, Aging Males Symptom Score, and the Sexual Health Inventory Score, and Sexual Intercourse Assessment. There is a reduction trend of Fat Mass Loss in the LJ100® group in overweight subjects (>25kg BMI) in waist and hips compared to placebo. LJ100® significantly improves sexual performance and satisfaction and was well tolerated with excellent safety profiles (identical to placebo) at 200 mg/day dose for 12 weeks.

Randomized Clinical Trial on the Use of LJ100® for the Improvement of Quality of Life and Sexual Well-Being in Men

Evidence-Based Complementary and Alternative Medicine, Volume 201211

A randomized, double-blind, placebo controlled parallel group study with 109 healthy men were given either 300 mg of LJ100® or placebo for 12 weeks. The LJ100® group showed significantly improvement in the domain Physical Functioning of SF-36, overall Erectile Function domain in IIEF, and sexual libido (14% by week 12). SHBG analysis is lower in LJ100® group compared to placebo (26.8 vs. 30.6). Sperm motility increase 44% (from 33.8% to 48.8%), and semen volume increase 18.2% (from 2.54ml to 3.00ml) in LJ100® group. There is a reduction trend of Fat Mass Loss in the LJ100® group in overweight subjects (>25kg BMI) in the trunk area in the LJ100® group. All safety parameters were comparable to placebo.

LJ100® in Managing Idiopathic Male Infertility

Asian Journal of Andrology (2010) 12: 376–380211

75 patients were given 200 mg of LJ100® daily for 9 months. Follow-up semen analyses in these patients showed significant improvement in sperm quality, sperm volume, sperm concentration (65.5% increase), sperm motility, and percentage of sperm with normal morphology (94.9% increase) in men with idiopathic infertility. Spontaneous pregnancies were achieved in 14.7% of couples in our study and the use of a less invasive, cheaper variety of ART became possible in another 60%.

Efficacy Findings from LJ100® Clinical Trials …

Effect of LJ100® on Stress Hormones and Psychological Mood State in Moderately Stressed Subjects

Journal of the International Society of Sports Nutrition 2013, 10:28

64 subjects (32 men and 32 women) were randomized to receive 200 mg/day of LJ100® or placebo for 4 weeks. At the end of treatment, LJ100® group showed significant improvements for Tension (–11%), Anger (–12%), and Confusion (–15%) compared to placebo. Stress hormone profile (salivary cortisol and testosterone) was significantly improved by LJ100, with reduced cortisol (–16%) and increased testosterone (+37%). LJ100® appears to have significant potential for restoring hormone balance (cortisol/testosterone) and improving psychological mood state in humans exposed to various modern stressors, including aging, dieting, and exercise stress.

LJ100® Extract Specification …

Botanical Source:	Eurycoma Longifolia
Country of Origin:	Malaysia
Part Used:	Root
Shelf Life:	3 Years
Extraction Method:	Patented high temperature, high pressure water extraction, ultra filtration, freeze dried without carrier
Solubility:	Highly Soluble
Appearance:	Brown Fine Powder
Active Ingredients:	>40% Glycosaponins >28% Eurypeptides >30% Polysacharides >0.8% Eurycomanone
Applications:	Nutritional Supplements, Sports Nutrition, Energy, Men's Health
Certifications:	Kosher, Self-Affirmed GRAS

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