





OMEGA PLUS (TONGKAT ALI)

AND

OMEGA EXTRACT (TONGKAT ALI EXTRACT)





THE NATIONAL TREASURE OF MALAYSIA

Introduction to its medical characteristics

The active ingredients in Tongkat Ali

1. Increases hormone production
2. Cures impotence
3. Increases sex drive
4. Prevents dengue fever
5. Resists malaria
6. Relieve fatigue
7. Reduces blood pressure
8. Improves health recovery rate
9. Relieves rheumatic pains
10. Relieves gout
11. Relieves backaches

Suitable applications:

Traditionally used to improve vitality, relieve fatigue, improve virility and increase hormone production.



The results of medical research

Dr. Ang Hooi Hoon

(Pharmaceutical Faculty, Universiti Sains Malaysia)

Many scientist and doctors have carried out research on the ability of Tongkat Ali in increasing virility. One of them is Dr. Ang Hooi Hoon from the Pharmaceutical Faculty, Universiti Sains Malaysia. She undertook a five year intensive research on Tongkat Ali in collaboration with the Institute of Medical Research, Singapore University.

The results of her research showed that:

1. There is no evidence of male to male attraction (homosexuality)
2. Improves erection
3. Increases sex drive, performance and possesses long lasting effects
4. Helps to promote sex life
5. Erection in two or three times better than common medication used for improving virility.

Dr. Johari (Universiti Malaya)

Another study was carried out by Dr. Johari using Tongkat Ali on middle-aged men for a week. It was discovered that an elevation of 480% was achieved in the production of testicle secretions.

As a product for improving virility, the 4effects of Tongkat Ali is Invincible.

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TONGKAT ALI

“Tongkat Ali” directly improves secretion of testicle hormones in men and helps to restore their confidence! If Tongkat Ali is taken twice a day, taking two tablets each time after food, its effect are visible on the fifth day. On long term administration, its helps to maintain youthfulness and vitality without any side effects.

Dr. Ismail

Dr. Ismail who is experienced in clinical studies on local herbs is of the opinion that the popularity and introduction of Tongkat Ali came only after much detailed studies by research units of various universities and institutions of higher learning. He said that local institutions have spent some 10 years in the research of the medical effect of Tongkat Ali, spending much money and effort, especially on its strengthening effect and elevation in the male hormone Androgen and proven in clinical tests carried out on animals and humans. He said the results of studies by Universiti Malaya, Universiti Sains Malaysia and the Forest Research Institute on Tongkat Ali has been submitted to the government for the establishment of a Traditional Medicine Council to further look into the potentials of the local herbal industry. Tongkat Ali has been ear-marked as the prime herb with medicinal and therapeutic properties. He said that these establishments utilized modern scientific methods to carry clinical studied on the therapeutic properties of Tongkat Ali including long term administration. Lately, it has been recommended by the Traditional Medicine Council and approved by the relevant authorities for it to be made into a finished product. He said the combined results of clinical studies of the various organizations are as follows: -

TTHE DIFFERENCES IN THE ADMINISTRATION OF TONGKAT ALI IN MICE

- The male hormone Androgen increased 3 to 4 times compared to normal circumstances
- Increased mating rate
- Male mice which were usually non-mating or inactive suddenly became sexually active

He said the above experiment showed that mice and other animals in clinical studies became extremely active after consuming Tongkat Ali to an extent that their sex drive was uncontrollable with a marked increase in the frequency.

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TONGKAT ALI

Eurycoma longifolia

Western medical diagnosis and treatment is the best and safest approach for all cases of sexual dysfunction that require medication, say medical scientist Assoc Prof Dr Johari Mohd Saad of Universiti Malaya.

“However, alternative medicine is still very popular and much sought after. But these products usually lack scientific and clinical data to substantiate the claims”.

He says the mechanisms that bring about an aphrodisiac effect of herbs are varied fro-different individuals, depending on the physiological state.

Mention herbal remedies to address sexual dysfunction or increase male sexual libido, and the *Eurycoma longifolia*, better known as Tongkat Ali, inevitably takes centre stage, drawing animated discussions.

Tongkat Ali (literally translated as Ali’s stick) is a tall, slender shrub-tree from the *Simaroubaceace* family and is commonly found along the hilly jungle slopes of Malaysia.

Its very bitter roots are used in traditional medicine as a cure for persistent fever and malaria. However, over the years, it has gained notoriety as a male aphrodisiac since it is reputed to increase male prowess.

“The aphrodisiac properties synonymous with this plant have been overly exploited commercially,” says Dr Johari, who has been doing research on the herbal plant since the 80s.

He says research has shown that the plant contains several biologically active components. Some of these non-polar (non-water soluble) components were shown to be toxic.





“The polar components, when prepared scientifically, however, do show testosterone-enhancing properties.”

He says animal and *invitro* studies using homogenates of the testes of prostate cancer patients have also shown a four-fold increase in testosterone levels compared to those under controlled conditions.

The early studies, he adds, provide promising data that the plant has potential as an alternative to testosterone therapy in addressing the physiological changes in ageing due to testosterone deficiency.

“However, there are misconceptions about its aphrodisiac properties,” says Dr Johari.

His concern is understandable as he says his name has been quoted by people promoting the herb sexual prowess enhancement. He says Tongkat Ali does not react in the same way as Viagra or such aphrodisiac as Spanish Fly, which takes effect immediately.

“Tongkat Ali has to be consumed regularly over time. It took at least a week even for the mice injected with Tongkat Ali in our laboratory work.”

He says in a three-year study on the effects of Tongkat Ali on mice, it was found that male mice injected with Tongkat Ali became sexually hyper-active (as observed from frequent mountings on female mice), had very high sperm count and sperm were “speedy swimmers” as compared to the mice in the control group (not injected with the herbal extract).

Indeed, a video played by Dr Johari to this writer showed that the sperms of the “controlled” mice were rather slow-moving with some even immobile.

He said that many Malaysian men suffer from low sperm count, one of the factors contributing to infertility.

However, female mice injected with Tongkat Ali extract in the study seemed to be rejecting mating.

“Based on our study, we found that Tongkat Ali works on the endocrine system by increasing the male hormone, androgen.”



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Clinical study into the effects of Tongkat Ali on human fertility is underway and is led by a team at the Institute of Medical Research.

Meanwhile, Dr Johari and his team at Universiti Malaya also researching other herbs such as *akar dawai*, *akar samat* and *ubijaga* associated with men's sexual / reproductive health as well as "feminine" herbs like *kacip fatimah* and *manjakami*.

"Our ultimate aim is to help solve fertility problems in humans and this will also help in the development of the country's animal husbandry.

"I believe in herbs but usage has to be based on systematic scientific research for some of the components can be toxic and carry other side effects."

He says processing and sterilization of herbal products are crucial because in the case of Tongkat Ali, for instance, the roots are prone to fungal growth after removal from the soil.

"If testosterone deficiency is the cause of the mellowed manism in you, then probably Tongkat Ali will provide you some extra push."

"However if you are really PADAM (partial androgen deficiency in men), then see your doctor. Probably, Viagra is for you." Murhayani Othman, New Sunday Times (30.05.99)

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The One and Only TONGKAT ALI EXTRACT.

MOST POTENT and Easily Absorbed.

Scientifically researched and developed in Malaysia.

100% pure active ingredient of Tongkat Ali.

Advanced technology extract ensured clean and safe from side effects.

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APHRODISIAC STUDY OF *EURYCOMA LONGIFOLIA* USING THE MODIFIED RUNWAY-CHOICE TECHNIQUE

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ABSTRACT

The aphrodisiac property of Tongkat Ali was studied on responsive male mice using the modified runway-choice technique. The urge to seek sexual contact was measured in terms of the preference in a run-and-choose situation for an estrous female (shown by the lordotic reflex in response to manual stimulation of the vaginal region and also confirmed by vaginal smear) versus and active male mice. Male mice were given 0.5 gm/kg daily of different extracts of Tongkat Ali, viz., chloroform, methanol, water and buttanol. Results showed that different fractions of Tongkat Ali began to enhance sexual motivation of the male mice after three days post-treatment and the effect was better eight days post-treatment.





Introduction

Eurycoma longifolia or Tongkat Ali, is a tall, slender shrub-tree from the Simaroubaceae family and is commonly found along the hilly jungle slopes of Malaysia. The roots are used in traditional medicine as a cure for persistent fevers and malaria (Gimlette & Thomson, 1977; Perry, 1980). In Malaysia, Tongkat Ali has gained notoriety as a male aphrodisiac since it is reputed to increase male prowess (Gimlette & Thomson, 1977). Pharmacological evaluations on the various compounds isolated from this plant showed that it possessed anti-malarial (Chan et al., 1986; 1989; Kardono et al., 1991), cytotoxic (Morita et al., 1990; Kardono et al., 1991; Itokawa et al., 1992; 1993; Morita et al., 1993) and ulcer (Tada et al., 1991) properties. However, no study has been carried out on the male aphrodisiac property arising from the chronic consumption of this plant. In this paper, we report the male aphrodisiac effect of various fractions of Tongkat Ali after chronic consumption using the modified runway-choice technique (Meyerson et al., 1973)

Materials and methods

Two hundred male mice (35-40 gm), naïve to heterosexual behaviour and drugs, were adapted to the test apparatus and subjected to a training procedure daily for 10 consecutive days in an optimum environment. Training period was carried out between midnight and 0700 hours after the beginning of the dark phase of the light-dark cycle. One-hundred-and-twenty most responsive male mice were selected on the 11th day and then divided into 6 groups with 20 mice per group. The groups were respectively fed with 0.5 g/kg chloroform, methanol, water and butanol extracts of Tongkat Ali, 0.03 g/kg yohimbine (Sigma Chemical, USA) and 3ml/kg normal saline only. This way followed by the test and the procedure was repeated daily for another 10 consecutive days. The male mice were then caged singly, with food and water available *ad libitum*.

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For the experiments, the male mice were deposited into a runway, which led to a choice situation in a chamber with two doors at the far end. Each door led into a separate goal cage. The male mice had to pass through the maze to reach the goal cage, which had the incentive animals, the sexually vigorous male and estrous female mice. If not otherwise stated, sexual contact was restricted. A wire mesh ran straight across the goal cage separating the experimental male mice from the incentive animals. The cage holding the incentive animal was restricted only to one category of mice. Female mice were brought into behavioral estrous with intramuscular injection of 0.5mg/kg of estradiol benzoate (Sigma Chemical, USA) 3 days before testing and 5 mg/kg of progesterone (Sigma Chemical, USA) approximately 3 hours before testing. Only receptive females were used in the study and this was shown by the lordotic reflex in response to manual stimulation of the vaginal region and also confirmed by the vaginal smear.

The male mice were expected to make a choice within 15 minutes hesitation time (the time the male mice spent before reaching the goal cage), after being placed in the apparatus and 1-2 minutes contact time (the time the male mice spent in the goal cage) were allowed in the goal cage. The urge to seek sexual contact was measured in terms of the preference in a run-and-choose situation for an estrous female (right choice) and a male (wrong choice). Male mice, which failed to respond within the stipulated hesitation and contact times, were considered as having no choice.

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Results and discussion

Fig. 1 shows the aphrodisiac response (% male mice responding to the 'right choice') of the male mice after consuming 0.5 g/kg of chloroform, methanol, water and butanol extracts of Tongkat Ali, 0.03 g/kg of yohimbine and 3 ml/kg of normal saline. Results showed that there was a transient increase in the population of male mice responding to the 'right choice' after chronic consumption of Tongkat Ali extracts and yohimbine. Generally, yohimbine and Tongkat Ali began to enhance the sexual motivation of the male mice after 2 and 3 days post-treatment respectively.

Further results showed that after 5 days post-treatment, more than 50% and 70% of the population of the male mice which consumed Tongkat Ali extracts and yohimbine respectively scored the 'right choice' and the effect was clearer after 8 days post-treatment. After this interval, more than 65% and 85% of the population which consumed Tongkat Ali extracts and yohimbine respectively scored the 'right choice'. From these results, it can be deduced that Tongkat Ali does possess an aphrodisiac property on the male mice after its chronic consumption.

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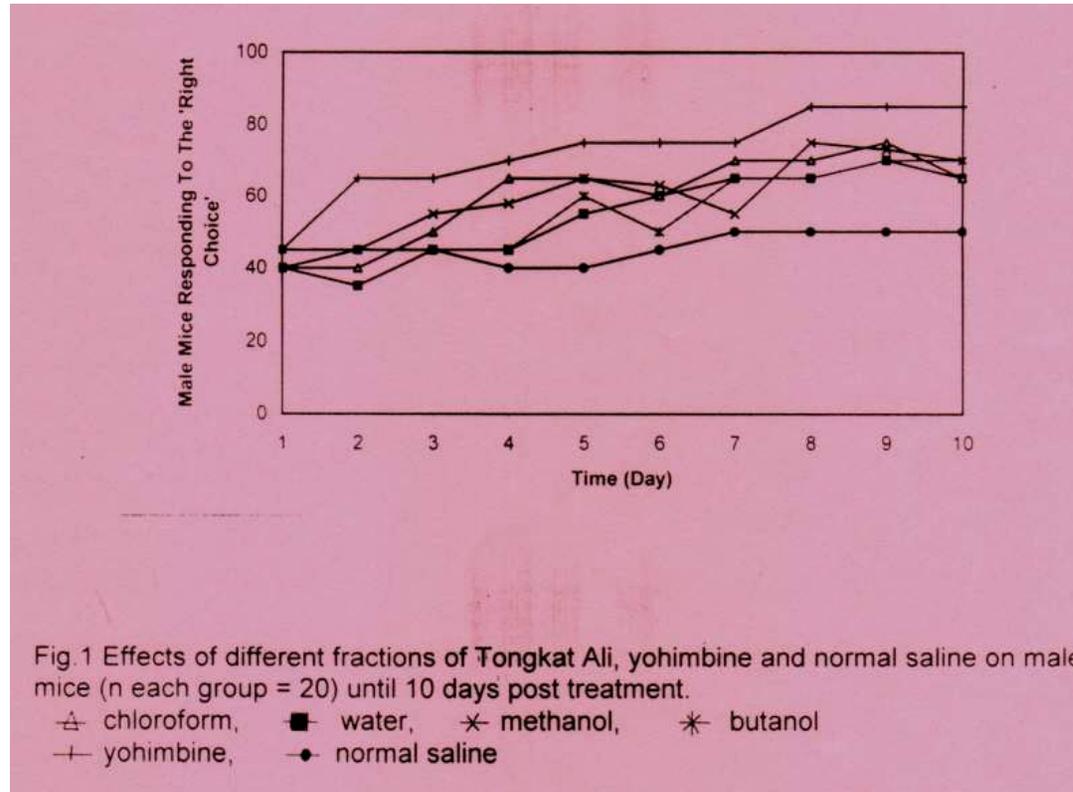


Fig.1 Effects of different fractions of Tongkat Ali, yohimbine and normal saline on male mice (n each group = 20) until 10 days post treatment.

△ chloroform, ■ water, × methanol, ✱ butanol
+ yohimbine, ● normal saline

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THE EFFECT OF EURYCOMA LONGIFOLIA ON RAT AND HUMAN TESTICULAR STEROIDOGENESIS

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ABSTRACT

Eurycoma longifolia, a plant from the family of Simaroubaceae, known locally as 'Tongkat Ali', is believed to have aphrodisiac properties. In this study, we wished to see if *Eurycoma longifolia* has an effect on the formation of testosterone in rat and human testes. Testicular suspensions were prepared under standard conditions and quadruplicate incubations performed (NADP/air: 37°C; 4 hrs) with pregnenolone (1.0 μ mole) in the presence or absence of *Eurycoma longifolia* extracts. With *Eurycoma longifolia*, the rat testis produced a 2.7-fold increase in testosterone production (6.80 ± 0.60 mg testosterone per mg protein; mean of quadruplicate incubations), as compared to 2.52 ± 0.59 of the control. In human testis, *Eurycoma longifolia* increased the formation of testosterone by 4.4-fold (12.91 ± 1.03 compared with 2.91 ± 0.76 of the control). Testosterone could be a main factor in triggering an aphrodisiac effect caused by *Eurycoma longifolia*.





Introduction

Eurycoma longifolia, known locally as 'tongkat Ali' is a plant claimed to possess several medicinal properties in the treatment of dysentery, glandular swelling, fever and other ailments (Chan *et al.*, 1991). The root of this plant is used as one of the main ingredients in preparing jamu and tonic as health preparations used in Malay traditional medicine. The water extract of *Euryoma longifolia* is believed to increase male virility. In this study, we wished to examine the effect of this plant extracts on the biosynthesis of male sex hormone, viz. testosterone in rat and human testes.

Materials and methods

Steroid standards and other chemicals were obtained from sources described earlier (Kwan *et al.*, 1988). Mature male albino rats (8-12 weeks old) were purchased from the Central Animal House of this University. Human testes were obtained by orchidectomy from men with prostatic carcinoma, from the University Hospital Testicular homogenates (20% w/w for human and 10% w/w for rats) were prepared at 4°C in 0.05M-Tris/Sucrose buffer, pH 7.4 as in Farizaturradiah *et al.* (1994). The homogenates were then centrifuged (Sorvall RC5C) at 1000 x g for 15 min at 4°C to remove the nuclei and cell debris. Post-nuclear suspensions were used for incubation studies. A portion of the testicular suspensions was reserved for protein determination using the method of Bradford (1976).





Incubation studies

Aliquots of 10 ml human testicular suspension (protein concn 3.06 mg/ml) or rat testicular suspension (protein concn. 3.98 mg/ml) were added pregnenolone (1.0 umole) as a substrate followed by the addition of 500 mg of *Eurycoma longifolia* (water-soluble) extracts. The reaction was initiated with the addition of NADPH (6.0 umole) as cofactor and the reaction mixtures were incubated at 37°C for 4 hrs. Termination of the reaction was by the addition of 5 ml ethyl acetate. In the control experiments, the testicular suspensions were pretreated with 5 ml ethyl acetate prior to incubation.

Extraction and derivatization of steroids)

Tritiated progesterone and internal standards (10 ug each) of 5 α -androstane-3 α . 17 α -diol, stigmasterol and cholesterol butanoate were added to the reaction mixtures prior to extraction in order to correct for analytical losses. The ethyl acetate extracts were purified by Sephadex LH-20 column chromatography and derivatized as methyloxime-trimethylsilyl (MO-TMS) ether. These steroids derivatives were further purified by Lipidex-5000 column chromatography as described in Farizaturradiah *et al.* (1994)

Gas chromatographic analysis

Steroids derivatives were analysed on a Varian 3500 gas chromatograph equipped with a SE-30 fused-silica capillary column (30m x 0.25mm, I D; 0.25 um film thickness) and a flame-ionization detector. The column oven temperature was programmed from 190°C to 300°C at 1.5°C/min with nitrogen carrier gas (1 ml/min). Other conditions are as in Kwan *et al.* (1988). Quantification of the steroids was achieved by comparing the ratio of the peak areas of steroids of interest internal standard with that of the authentic steroid standard.

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Results and discussion

Table 1 shows the amount of steroid metabolites formed in the human testicular suspensions with the varying incubation conditions. Endogenous testicular steroids levels were determined by the prior treatment of testicular homogenates with ethyl acetate, before incubation with pregnenolone which would inactivate the steroid-transforming enzymes.

In this study, it was found that *Eurycoma longifolia* increased pregnenolone metabolism. Testosterone level increased 2.7-fold in rat (Fig.1) and by 4.4-fold in human (Fig.2). These results show that this plant extract has a stimulating effect on the production of testosterone. The level of 5-androstenediol in the human testicular suspensions was low, indicating that it was rapidly converted to testosterone (Table 1). In rat, the level of 4-androstenedione was high, indicating that the $\Delta 4$ pathway is active in synthesizing testosterone.

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Table 1: The amount of steroids (derivatized as MO, TMS or MO-TMS) obtained from human testicular suspensions with varying incubations

Steroid Derivative	MEAN* (ug steroid/mg protein)		
	C1-4	Preg 1-4	E.I. 1-4
5 α -Androstane-3 α , 17 β -diol	5.12 \pm 1.06	7.89 \pm 0.82	5.75 \pm 0.32
5-Androstenediol	8.19 \pm 0.31	11.39 \pm 0.75	7.42 \pm 0.19
5 α -Dihydrotestosterone	21.42 \pm 2.13	25.41 \pm 2.25	20.53 \pm 0.61
Testosterone	2.48 \pm 0.96	2.91 \pm 0.76	12.91 \pm 1.03
16-Dehydropregnenolone	3.72 \pm 2.04	3.94 \pm 0.91	4.86 \pm 0.64
17-Hydroxypregnenolone	0.11 \pm 0.02	0.76 \pm 0.04	0.09 \pm 0.00
4-Androstenedione	18.33 \pm 4.21	21.58 \pm 0.94	24.51 \pm 1.83

- The value shown is the mean of quadruplicate incubations (\pm S.D.) corrected for analytical losses.

C1-4: Testicular incubations, pretreated with ethyl acetate

Preg 1-4: Testicular incubations with pregnenolone.

E.I. 1-4: Testicular incubations with pregnenolone + *Eurycoma longifolia*

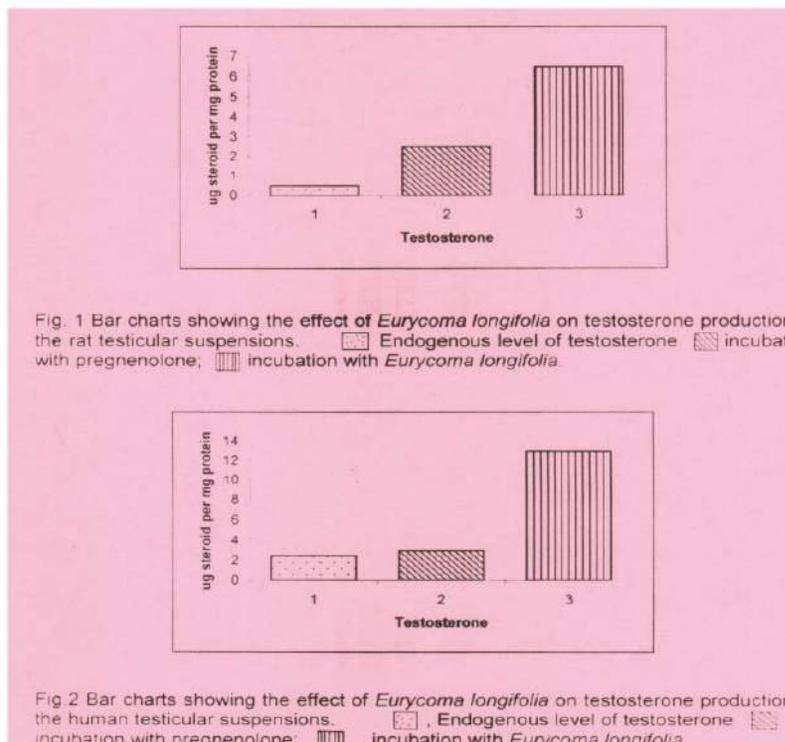
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Testosterone is the most potent naturally occurring androgen in man. It is probably the main factor that triggers off the aphrodisiac effect. Since the testosterone level was found to increase in the presence of *Eurycoma longifolia*, it does appear that this plant extract has an aphrodisiac property.

The conversion of pregnenolone to testosterone through the $\Delta 5$ pathway involves the hydroxylation of pregnenolone to 17-hydroxypregnenolone by a 17-hydroxylase. 17-Hydroxypregnenolone is further converted to DHA by the C17, 20-lyase enzyme. DHA is then transformed to 4-androstenedione by 3β -hydroxysteroid dehydrogenase and isomerase, with 4-androstenedione being converted to testosterone by 17β -hydroxysteroid dehydrogenase. An alternative conversion through the $\Delta 5$ pathway involves the metabolism of DHA to 5-androstenediol by 17β -hydroxysteroid dehydrogenase enzyme. 5-Androstenediol is then transformed to testosterone by 3β -hydroxysteroid dehydrogenase and isomerase enzymes. The 17-hydroxylase is a mixed-function oxidase which involves NADPH-cytochrome P-450 reductase, a flavoprotein and an additional factor presumed to be a phospholipid which transfers electrons from NADPH to cytochrome P-450. Since the level of testosterone in the testis is increased upon incubation with pregnenolone, it can be proposed that the active principle(s) of *Eurycoma longifolia* present in the plant extracts may probably act on the mixed-function oxidase system.

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Acknowledgement

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TONGKAT ALI

Improves Energy, Performance and Endurance

Eurycoma Longifolia Jack (Tongkat Ali) is a tall slender shrubtree which grows wild along the hilly slopes of the rainforests of S.E.Asia.

In Malaysia, Tongkat Ali has been found to contain quassinoids and research has confirmed that isolated constituents as well as whole plant extract have many medicinal values. Some of the benefits include:

1. As a potent Aphrodisiac (enhances sexual prowess) (Dr H.H. Ang et al)
2. Anti-viral (K.L. Chan et al)
3. Anti-malarial (Chan et al. 1988 & 1989, Kardono et al. 1997)
4. Anti-pyretic activity (K.L.Chan, S.P.Lee & K.H.Yuan)
5. Anti-inflammatory (allergic-reactions) (M.Rajen, 27-6-98)
6. Anti-ulcer (Tada et al. 1997)
7. Anti-anxiety (Japan Journal of Pharmacology)
8. Cytotoxic (anti-carcinogenic tumour) (Kardono et al. 1997)
9. Anti-hypertensive (M.Rajen, 1998 Sunday Star)
10. Anti-osteoporosis (M.Rajen, 1998 Sunday Star)
11. Increases the efficiency of the hearing system (M.Rajen, 1998)
12. Improves physical and mental performances (M.Rajen, 1998)
13. Enhances energy level (M.Rajen, 1998 Sunday Star)
14. As an adaptogen reduces fatigue and exhaustion (M.Rajen, 1998)
15. Improves appetite and digestion (M.Rajen, 1998 Sunday Star)
16. Tones skin and muscles (M.Rajen, 1998 Sunday Star)
17. Improves immune system (M.Rajen, 1998 Sunday Star)

Research has shown that *Eurycoma Longifolia Jack* contains several phytochemicals (plant chemicals) that increase the level of testosterone the sex hormone required for male sexual functions. It is also required in the development of the sexual organ and the brain.

As reported in the *New Sunday Times* on 30.5.99, according to Dr. Juhari Mohd Saad of University Malaya, male mice dosed with *Eurycoma Longifolia* extract became sexually hyperactive and mated on female mice more frequently. The sperm count and vigour of the sperms both increased compared to mice not given the dose.

Testosterone level decreases steadily with age. The level of testosterone is at its peak at 100% around age 20, and ends at only 20% - 50% at age 80. According to recent studies, on the average, testosterone levels drop 1% yearly. In fact many men's testosterone levels languish to below the deficient threshold of 350ng/ml at age 50 to 60. Normally, 500-1,100ng/ml of testosterone should be in the blood. (Dr. Subhani Muhammad, Institut Teknologi MARA, Pahang Branch)




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PRODUCT NAME : **OMEGA-P CAPSULES**

CONTAINS : 60 Pcs

SIZE : 500mg

1.0. INGREDIENTS

Coriandrum sativum
Eurycoma longifolia
Syzygium aromaticum
Kaempferia galanga
Piper longum
Globia pandula
Parkia roxburghii

2.0. INTRODUCTION

Omega P Capsule especially formulated for men and women use suggested for active people contain blend of herbs and spice effectively for internal body supplements.

3.0. TRADITIONAL USE

- Strengthened the join and waist
- Cure body and muscle ache
- Sex stimulant (increase libido)
- Helping digestion
- Gives satisfaction during sexual intercourse
- Increase daily energy

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4.0. THERAPEUTIC USE

- Carminative (expel abdominal gases)
- Antispasmodic (prevent muscle cramp, artery, colon, ureter)
- Stimulator (increase body bio-activity)
- Anti-rheumatic (swollen joint muscle and fiber tissue)
- Anti-jaundice (yellow skin)
- Anti-lumbago (backache)

5.0. DIRECTION OF USE

- 2 capsules each morning and night after meal

6.0. GUIDANCE REFERENCES

- Index Tumbuhan Herba
- Tumbuhan dan Perubatan Tradisional
- Profile Tumbuhan CEPP UTM
- Dictionary of the Economic Product of Malay Peninsula I.H Burkill (volume 1A-H)



PRODUCT NAME	:	OMEGA EXTRACT CAPSULES
CONTAINS	:	60 Pcs
SIZE	:	500mg

1.0 INGREDIENTS

EURYCOMA LONGIFOLIA

2.0 INTRODUCTION

A research done by LPPKM showed that Tongkat Ali possessed greater effectiveness and more mild than Viagra. Five times stronger than Chinese Ginseng and four time stronger than the Red Ginseng which is reckoned as the best ginseng in the world. Increase testosterone hormone level for men. Lack of this hormone will cause to certain ailment such as Alzheimer, Osteoporosis, Cardio diseases, Senile and others.

3.0 TRADITIONAL USE

- To improve man healthy
- Strengthen the body
- Curing erectile dysfunction
- Increase sperm count

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4.0 THERAPEUTIC USE

- Aphrodisiac (stimulate the sexual desire)
- Anti-aggregation (delayed glottiness of blood)
- Curing lumbago (backache)
- Anti Jaundice
- Anti Malaria
- Stimulant to increase the energy

5.0 DIRECTION OF USE

- 1 capsule 2 times a day after breakfast and meal.

6.0 REFERENCES GUIDE

- Tumbuhan dan Perubuatan Tradisional (Mr. Mohamad Bin Zakaria, Mustapha Ali Mohd)
- Malaysian Medicinal Plants for the treatment of cardiovascular diseases (Prof. S.H Goh, Dr. C. H. Chua, Dr. J.S.L Mok, Dr E. Soepadma)
- CEPP (Chemical Engineering Pilot Plant UTM)
- Harian Metro on 5th April 2000, Wednesday





OMEGA EXTRACT BOTTLE LABEL



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LATEST UPDATE - ADVERTISEMENT



HEALTH FORUM

9

Tongkat ali 'fights HIV, cancer'

KUALA LUMPUR – Research has shown that tongkat ali – a Malaysian jungle plant widely believed to be an aphrodisiac – could also be effective against cancer and HIV, the New Sunday Times has reported.

The paper said yesterday that early results from a study conducted by a Malaysian government-sponsored agency and the Massachusetts Institute of Technology found that some chemical constituents of the "tongkat ali" plant show high anti-cancer and anti-HIV activity.

HIV is the virus which causes Aids.

Forest Research Institute Malaysia director-general Abdul Razak Mohd Ali said that initial research had shown that the chemical constituents could be more effective than existing anti-cancer drugs.

Tongkat ali, scientifically known as *Eurycoma longifolia*, is reputed to boost a man's sex drive, although villagers have long used it to improve blood circulation and cure skin diseases.

Malaysia last year patented the plant, which also grows in Thailand and Indonesia, to give the country a big push into the herbal medicine industry. - Reuters

THE STRAITS TIMES : Tuesday, July 23, 2002

Tongkat ali offers anti-HIV, anti-cancer hope

KUALA LUMPUR — A Malaysian jungle plant believed widely to be an aphrodisiac could also be effective against cancer and the human immunodeficiency virus (HIV), a newspaper reported on Sunday.

The New Sunday Times said early results from a study by a Malaysian government-sponsored agency and the Massachusetts Institute of Technology found that some chemical constituents of the *tongkat ali* plant show high anti-cancer and anti-HIV activity.

HIV is the virus which causes Aids.

Mr Abdul Razak Mohamad Ali, director-general of the national Forest Research Institute Malaysia, was quoted by the newspaper as saying that initial laboratory work had shown that the plant's chemical constituents could be more effective than existing anti-cancer drugs.

Tongkat ali is said to boost the male sex drive, although Malaysian villagers have long used it to improve blood circulation and cure skin diseases.

Another United States-Malaysian study has shown that the bintangor tree found in Sarawak is a source of calonolide, an anti-Aids compound. It is currently undergoing clinical trials in the US. — REUTERS

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Thank You

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