



# The reproductive tract

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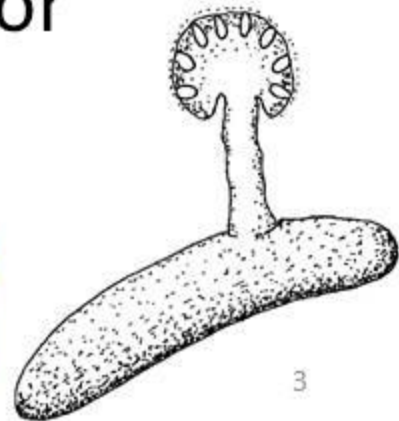
# PHYTOMEDICINES IN CHILDBIRTH

Taking (any) medicine during pregnancy is generally not advisable as safety of the mother and fetus cannot be guaranteed. Raspberry leaf is included here simply because according to folklore it has a widespread use in facilitating childbirth, and it is often recommended that it be taken during pregnancy for this purpose, but the use cannot be recommended as there is little clinical evidence available to demonstrate either safety or efficacy.

# ERGOMETRINE

EU\*

Ergometrine is an alkaloid extracted from ergot (*Claviceps purpurea* Tul.), a parasitic fungus growing on cereals, usually rye. It is used to manage the third stage of labor (in conjunction with oxytocin), and to control postpartum hemorrhage if the placenta has not been completely expelled. It must be used only under the care of a midwife or obstetrician.



# RASPBERRY LEAF, *RUBUS IDAEUS* L. (RUBI IDAEI FOLIUM)

Raspberry leaf (*Rubus idaeus*, Rosaceae) 'tea' has been used for centuries to facilitate childbirth, and it is usually recommended that it be drunk freely before and during confinement for maximum benefit. The raspberry shrub is well known and will not be described. It is cultivated in many temperate countries for the fruit.

## Constituents

The leaves have not been well investigated, but contain uncharacterized **polypeptides** and **flavonoids**, mainly glycosides of **kaempferol** and **quercetin**, including **rutin**.





# Therapeutic uses and available evidence

A retrospective observational study on 108 mothers in Australia indicated that a shortening of labor and reduction in medical intervention occurred, with no untoward effects apart from a single case of diarrhea and anecdotal reports of strong Braxton Hicks contractions. However, a larger, randomized placebo-controlled trial of 192 women by the same authors did not confirm such benefits, although no adverse effects for either mother or baby were noted. Uterine relaxant effects have been demonstrated in animals, and raspberry leaf appears to affect only the pregnant uterus of both rats and humans, with no activity on the non-pregnant uterus. However, no further identification of the active principle(s) has been made and a recent review concludes that in the absence of good clinical data, raspberry leaf cannot be recommended in pregnancy.

# MALE SEXUAL DYSFUNCTION (IMPOTENCE)

Male impotence (**failure to produce a satisfactory or sustainable erection**) may result from psychogenic, vascular, neurogenic or endocrine abnormalities (such as diabetes), or drug treatment (e.g. with antihypertensives and antidepressants). It can be treated with either intracavernosal injections of papaverine or alprostadil (prostaglandin E1), intraurethral application (alprostadil) or systemically [sildenafil (Viagra®) or apomorphine]. Medical assessment is needed before these drugs are prescribed. Although papaverine is of natural origin, it is only suitable for self-medication after medical diagnosis, but there are several herbal products available, which claim to treat this distressing disorder. The most common are probably **epimedium**, and **yohimbe**, a traditional aphrodisiac, and there are others, which are often strange botanical mixtures and usually sold under the description 'Herbal Viagra'. There is no good clinical evidence of efficacy for any of these, although epimedium has some pharmacological actions in common with those of sildenafil (Viagra®), and may have a placebo effect. One of the others is the well known Shish el Zallouh ***Ferula hermonis*** Boiss. Which has proved that it helps but at the same time it do produce infertility.

# ***EPIMEDIUM BREVICORNUM* MAXIM (EPIMEDII HERBA) AND EPIMEDIUM SPP.**

***Epimedium brevicornum*** Maxim (Berberidaceae) and related species are also known as 'horny goat weed'. The herb was apparently discovered by the Chinese, who noticed that when goats had eaten it, they were eager to mate, and for this reason they called the herb 'yin yang huo', or 'licentious goat plant'. Epimediums are sprawling, attractive, perennial herbs, with cordate leaves and white, cream, pink, yellow or lavender flowers. Although native to Asia and the Mediterranean region, they are widely cultivated. Epimedium has been used for the treatment of erectile dysfunction in Traditional Chinese Medicine for many years. It is also used to ease menopausal symptoms in women and to treat and prevent osteoporosis.



# Constituents

The flavonoids are the active constituents, the most important being **icariin** and its analogues, with **epimedin A**, **B**, and **C**, and **baohuoside I**.



230. *Epimedium alpinum* L. Alpen-Sockenblume.

# Therapeutic uses and available evidence

Icariin has phosphodiesterase type 5 inhibiting effects (the mechanism of action of sildenafil) and may also have neurotrophic effects. A study of the effects of icariin administered daily to cavernous nerve-injured rats found that the ratio of intracavernous pressure to arterial pressure was significantly higher compared with control (and also single-dose icariin-treated) animals. The penile tissue of rats treated with icariin showed greater positivity for neuronal nitric oxide synthase and calponin, and cultured pelvic ganglia treated with icariin had significantly greater neurite length. Icariin is also a bone anabolic agent that may exert its osteogenic effects through the induction of bone morphogenetic protein-2 and NO synthesis, subsequently regulating gene expression and contributing to the induction of osteoblast proliferation and differentiation.

# PAPAVERINE

Papaverine is an alkaloid extracted from the opium poppy (*Papaver somniferum* L.). It is most often used for the treatment of impotence of **neurological** or **psychogenic origin**. As it must be given by intracavernosal injection, it is normally only used as a last resort when less invasive treatments have failed.





# YOHIMBE, *PAUSINYSTALIA JOHIMBE* (K. SCHUM.) PIERRE

Yohimbe bark (Rubiaceae) occurs as flat or slightly quilled pieces, often covered with lichen.

## Constituents

The bioactive constituents are indole alkaloids, the major one being yohimbine, together with  $\alpha$ - and  $\beta$ -**yohimbane**, **pseudoyohimbine** and **coryantheine**.

## Therapeutic uses and available evidence

Yohimbine is an  **$\alpha$ -adrenergic blocker** and has a wide (but not justified) reputation as a sexual stimulant. It should be used only under the advice of a medical herbalist or physician.





# Maca *Lepidium meyenii* Brassicaceae

Maca is an herbaceous biennial plant native to the high Andes of Peru.

## Constituents

Maca is rich in the dietary minerals **calcium** and **potassium**, with low content of sodium in addition to essential trace elements **iron**, **iodine**, **copper**, **manganese**, and **zinc**, as well as **fatty acids** including **linolenic acid**, **palmitic acid**, and **oleic acids**, and **19 amino acids**, maca contains polysaccharides.



# Therapeutic uses and available evidence

Maca is mainly grown for the nutritional and health value of its root and has been marketed for its supposed benefits for **sexual performance**, although there is insufficient evidence that it helps with sexual or erectile dysfunction in older people. A review found limited evidence for the effectiveness of maca as a treatment for **menopausal symptoms**, and other study found evidence from a limited number of studies supporting the use of maca for improvement in **semen quality** in healthy and infertile men.



The Natural Choice in Reproductive Health

# Maca

for fertility

**Dietary Supplement Designed to:**

- ✓ Promote sexual vitality and fertility in men and women\*
- ✓ Support optimal sperm health in men\*
- ✓ Promote hormonal balance in women\*

60 Capsules, Two Month Supply



FAIRHAVEN HEALTH



Shirsh el Zallouh ***Ferula hermonis*** Boiss.

Apiaceae

A perennial shrub that grows on the Hermon mountain, is used in the Middle East to improve sexual behaviour in the treatment of frigidity and impotence, but be careful of its **sterility effects in men!**

## Constituents

The essential oil of ***Ferula hermonis*** contains  **$\alpha$ - Pinene** 40%,  **$\alpha$ - Bisabolol** 11%, **3,5-Nonadiyne** 4.4% and other 111 constituents like the 3 sesquiterpenes **Jeaschkeanadiol angelate** (Ferutinina), **Jaeschkeanadiol (Ferutinol)** and **Jeaschkeanadiol benzoate (Teferidine)** which are presents in the its apolar extracts too.









# Therapeutic uses and available evidence

The main use is as **sexual enhancement**, but its essential oil has **antifungal** activity especially against dermatophytus like *Trichophyton mentagrophytes*, *Mycrosporum gypseum* and *Candida lactis-condensi*.

The infusion has anti cholesterol activity and it reduce blood sugar levels, some *In vivo* study's demonstrated that continues consumption of its aqueous extract can help in the elderly status of muscular mass retraction.

Other herbs used are:

***Panax ginseng* (Root)**

***Eruca sativa* (Leaves)**

***Nagella sativa* (Seed & oil)**

***Zingiber officinale* (Root)**

***Raphanus raphanistrum* (Root)**

***Apium graveolens* (Root)**

***Phoenix dactylifera* (Pollen)**

**Nuts (*Prunus dulcis*, *Corylus avellana* and  
*Pinus* spp.)**



# ***Eruca sativa***



# What's in *Nigella sativa* Seeds ?



Moisture = 4 - 6%



Ash = 3 - 14%



Fiber = 6 - 36%



Protein = 20 - 23%

3.7% Branched Chain Amino Acids



Carbohydrate = 29 - 37%



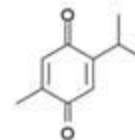
Omega-6 fatty acids  
Omega-3 fatty acids  
Tocopherols  
Carotenoids  
Phytosterols

Oil = 34 - 39%



Quinones  
Monoterpenoid phenols  
Alkaloids  
Saponins  
Phytosterols

Essential Oil = 0.5 - 1.5%



Thymoquinone = 0.0 - 0.75%





# ***Raphanus raphanistrum***





# *Apium graveolens*





# ***Phoenix dactylifera***

















# ***Pinus pinea***















