

**SAFETY ZESTRA OIL IN FEMALE SEXUAL DISORDER**

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**ABSTRACT**

Zestra is a botanical oil made from botanical ingredient manufacture under GMP (good manufacturing practice) all women feel more sexually satisfied which creates to help women feel more effortlessly. Topically applied Zestra works within minutes by heightening patient sensitivity to touch. Zestra is hormone free and paraben free hence its having less side effect, safer and effective and also have no drug interaction so its harmless. Zestra is much more effective in FSD and FSAD.

**KEYWORDS:** FSD, FSAD, Anti-oxidant, Vitamin-K, GMP.

**INTRODUCTION**

Female sexual dysfunction (FSD) and Female sexual arousal disorder (FSAD)<sup>[1,2]</sup>

Sexuality is a complex process, coordinated by the neurologic, vascular and endocrine systems. Individually; sexuality incorporates family, societal and religious beliefs, and is altered with aging, health status and personal experience. In addition, sexual activity incorporates interpersonal relationships, each partner bringing unique attitudes, needs and responses into the coupling. A breakdown in any of these areas may lead to sexual dysfunction.

**FSAD Facts**

Female sexual arousal disorder (FSAD) affects majority of women irrespective of age. These women find that their genital organs do not respond to sexual stimulation.

**Worldwide**

Worldwide, female sexual dysfunction (FSD) is a highly prevalent problem for **38%-63%** of women.

**Female sexual dysfunction and Female Sexual Arousal Disorder<sup>[3]</sup>**

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**Classification of Female Sexual Dysfunction<sup>[4]</sup>**

Sexual dysfunction disorders may be classified into four categories:

**1. Sexual desire disorders**

Sexual desire disorders or decreased libido are characterized by a lack or absence for some period of time of sexual desire or libido for sexual activity or of sexual fantasies.

**2. Arousal disorders**

Is a disorder characterized by a persistent or recurrent inability to- Attain sexual arousal or to maintain arousal until the completion of a sexual activity or an adequate lubrication-swelling response, present during arousal and sexual activity.

**3. Orgasm disorders**

Orgasm disorders are persistent delays or absence of orgasm after adequate sexual arousal and sexual stimulation following a normal sexual excitement phase.

**4. Pain disorders**

Sexual pain disorders affect women almost exclusively and are known as dyspareunia (painful intercourse) or vaginismus (an involuntary spasm of the muscles of the vaginal wall that interferes with intercourse).

**Basic cause of FSAD<sup>[4]</sup>**

A woman's body undergoes continuous changes which could be natural as well as induced due to some drugs. These changes through which woman's body goes through sometimes causes Female Sexual Arousal Disorder which are discussed below:

**In 20s & 30s age**

- 20's and 30's, are the height of reproductive potency in women life stage.
- Women's body produce hormones that help become aroused and to respond during sexual activity.
- Estrogens help keep the vaginal tissues healthy.
- Androgens drive desire and arousal.

**Body after child birth**

- During the immediate weeks after childbirth, the ovaries are quiet and both estrogens and androgens are low.
- Post-childbirth sexual complaints include: loss of desire, decreased frequency of sexual activity, painful intercourse, diminished sexual responsiveness, difficulty achieving orgasm, decreased genital sensation, decreased genital arousal
- Many women experience less interest in sex and slower, less intense feelings of excitement, as well as a decrease in vaginal lubrication.
- This can cause frustration. On average, sex hormones revive up again within three months, but the timing depends on a lot of factors like breast feeding, fatigue, caesarean delivery, and social support.

**Body & oral contraceptives****An Ironic situation**

“The hormones women take to prevent pregnancy can decrease the desire to have sex.”

- While this is a transient phase in some women, for others this blunting of sexual feelings continues to be a problem.
- These women may need to change to a different oral contraceptive or to an entirely different method of birth control.

**Body & Menopause**

- In the years leading up to menopause, hormone levels become unpredictable.

- Some month's estrogen is higher, some months lower, and some month's just right.
- As a woman approaches that final menstrual period, other hormones change too.
- Progesterone secretion drops off and then stops. Androgens also begin to decline.
- All these shifts during the menopausal transition can wreak havoc on many aspects of a women's life: sleep, mood, and sex.
- After menopause, the loss of estrogen and androgen can lead to a real drop off in sexual responsiveness.
- In addition, lower levels of estrogen can cause a decrease in blood supply to the vagina. This decreased blood flow can affect vaginal lubrication, causing the vagina to be too dry for comfortable intercourse.
- This estrogen loss leads to a decrease in vaginal lubrication and vaginal elasticity, and the decline in androgens may affect interest and enjoyment.
- These changes, while entirely natural, can affect the sexual life of women.
- ZESTRA is a patented blend of botanical oils and extracts, including:
  - Borage seed oil,
  - Evening Primerose oil,
  - Angelica extract,
  - Coleus forskohlii extract,
  - Theobromine,
  - Anti-oxidants:
    - Ascorbyl palmitate(vitamin C),
    - Tocopherol (vitamin E)
  - Flavour

**Basic introduction & MOA of ingredients of Zestra<sup>[5,6,7,8]</sup>****Borage oil and Evening primrose oil**

Borage oil and evening primrose oil mainly contains gamma linolenic acid (GLA).

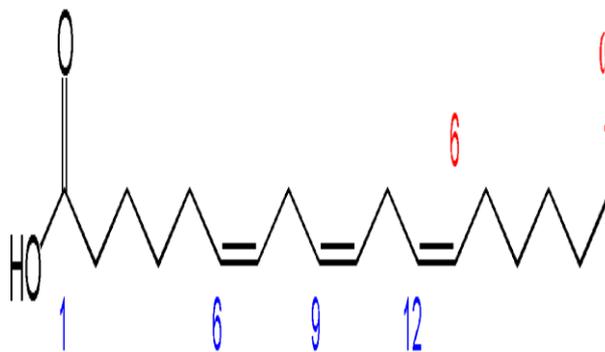


Figure 3: Molecular structure of GLA.

- GLA is categorized as an  $n-6$  (also called  $\omega-6$  or omega-6) fatty acid which is an essential fatty acid, meaning that the first double bond on the methyl end (designated with  $n$  or  $\omega$ ) is the sixth bond. In physiological literature, GLA is designated as 18:3 ( $n-6$ ). GLA is a carboxylic acid with an 18-carbon chain and three *cis* double bonds. It is an isomer of  $\alpha$ -linolenic acid, which is the  $n-3$  fatty acid.
- GLA, via conversion to PGE1 enhances smooth muscle relaxation and vasodilatation which further helps in increasing blood flow to the vagina and thus helps in coping up of FSAD.

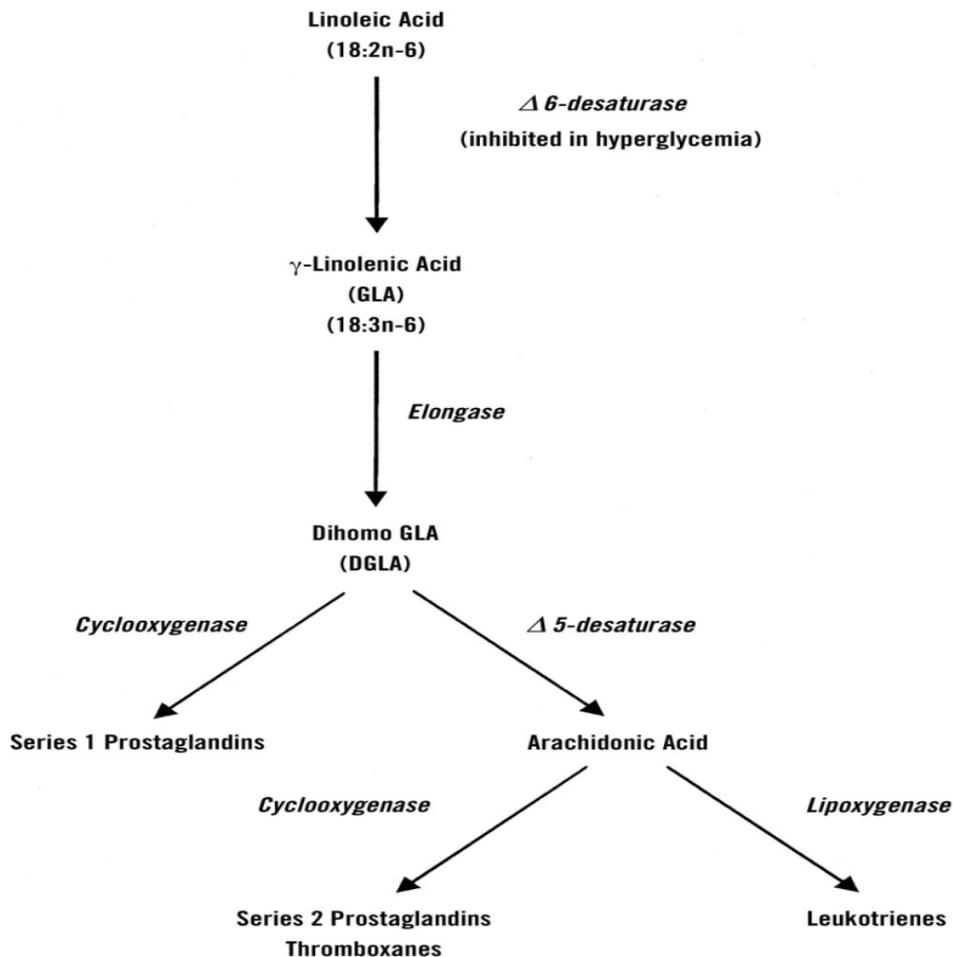


Figure 4: Mechanism of action of Borage and Evening Primrose oil.

#### Angelica Root Extract

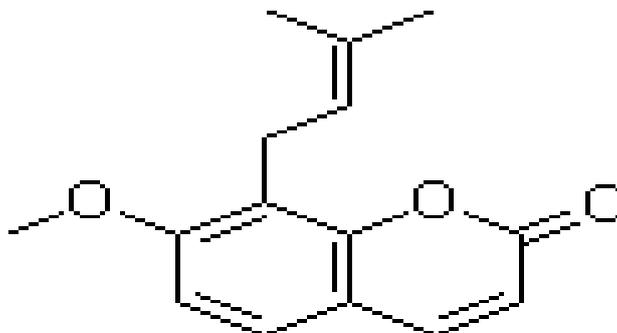
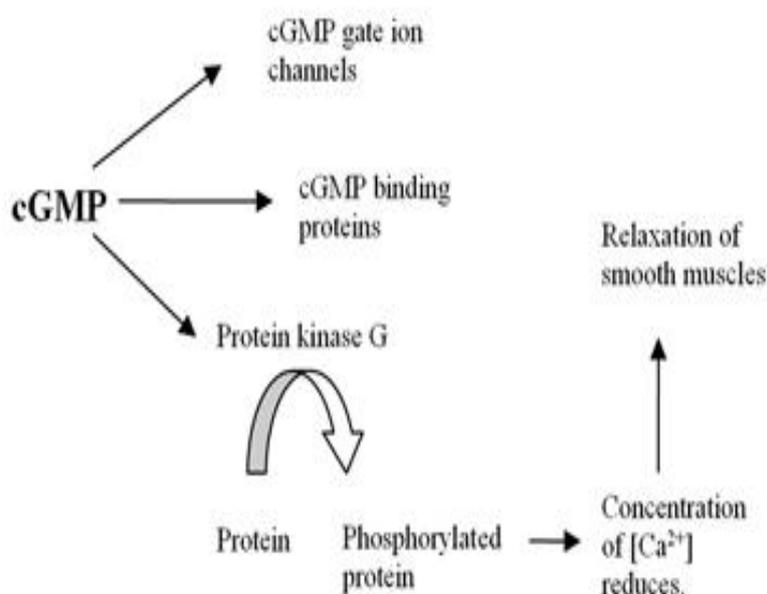


Figure 5: Molecular structure of Osthole.

- Osthole is 7-Methoxy-8-(3-methyl-2-butenyl)-2H-1-benzopyran-2-one
- Osthole suppresses phosphodiesterases to increase intracellular cyclic GMP.
- Which in turn binds with protein kinase G(PKG).
- Reduces level of calcium which leads to relaxation of vaginal smooth muscles and enhances vaginal secretion.



**Figure 6: Mechanism of action of Osthole.**

#### **Coleus Forskolin**

- Coleus forskohlii contains forskolin as a main active moiety.
- Activation of adenylate cyclase by forskolin results in marked increases in levels of intracellular cyclic AMP in a variety of eukaryotic cells.
- In turn Cyclic AMP reduces the calcium level which causes relaxation of smooth muscles and increase in the vaginal secretion.

#### **Theo bromine, Vitamin C and E**

- Theo bromine - A chemical stimulant similar to caffeine, by increasing blood flow and nerve conduction in most private areas.
- Vitamin C and E - Antioxidants
- Vitamin E found in asparagus is considered to stimulate sex hormone production.

Zestra is a patented blend of herbal essential arousal oil which having combination of Borage seed oil, Evening Primrose oil, Angelica extract, Coleus forskohlii extract, Theobromine, Anti-oxidants: Ascorbyl palmitate (vitamin C), Tocopherol (vitamin E) and Flavour.

This product is used in indication of Female sexual arousal disorder associated with menopause, women on SSRIs, Multiple sclerosis, oral contraceptives.

#### **Clinical studies<sup>[9,10]</sup>**

The effectiveness of Zestra was supported by two clinical trials. However, both studies included subjects with various sexual disorders, making the product's efficacious on healthy women well established.

First clinical trial study stated that Zestra for Women was well tolerated under conditions of use. It also improved

level of desire, satisfaction with level of sexual arousal, level of sexual arousal, genital sensation, sexual pleasure, ability to have orgasms, and enhancement of sexual experiences in normal and FSAD women while eliminating the undesirable sexual side effects of SSRI antidepressants in women.

**ZESTRA** was developed to provide a much needed option for all women to feel more sexually satisfied. ZESTRA was a safe, patented blend of botanical oils & extracts, created to help women feel more – effortlessly. Topically applied ZESTRA works within minutes by heightening patients' sensitivity to touch – for deep, pleasurable sensations, sexual satisfactions & fulfilment.

Zestra provides several benefits, some of which were listed below,

- **ZESTRA is a clinically proven combination of essential arousal oils.**
- **Recommended by doctors and women's healthcare professionals**
- **Clinically documented to be safe and effective**
- **Hormone-free & paraben-free**
- **Has no known drug interaction**
- **Is made of botanical ingredients and is harmless if ingested**

#### **CONCLUSION**

Zestra is blend of herbal essential oil, which contain Borage oil which cause smooth muscle relaxation and vasodilation which increases blood flow to the vagina, Angelica root extract reduces calcium level leads to relaxation of vaginal smooth muscle and enhance vaginal secretion, coleus forskolin cause relaxation of smooth muscle and increase vaginal secretion, Vitamin-C and Vitamine-D stimulate sex hormone. Because of

herbal formulation Zestra has no side effect and hence it is safer.

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