

THE NATIONAL LUPRON VICTIMS NETWORK

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LUPRON: DOES LUPRON PUT YOU INTO MENOPAUSE?

Ammenorrhea (loss of your menstruation) can be due to four different causes:

1. **disorders** of the **pituitary gland**;
2. **disorders** of the **hypothalamus and central nervous system**;
3. **disorders** of the **ovaries**;
4. **disorders** of the **uterus**. (9, 12)

I. HYPOPHYSECTOMY

A Hypophysectomy is the destruction or excision [removal] of the pituitary gland.

1. In 1988, Bischof and Herrmann stated their "results as well as clinical evidence indicate that sustained treatment with GnRH agonists most likely **abolishes pituitary function.**" (6)
2. In 1988, Henig, Rawlins, Weinrib and Dmowski stated that a "**medical [drug] hypophysectomy** [is] induced with gonadotropin-releasing hormone agonists (GnRHa)." (4)
3. In 1989, Florence Comite, a lead investigator of GnRH-a at the NIH (National Institute of Health) stated that "GnRH analogs decrease ovarian steroidogenesis through selective **hypophysectomy.**" (5)

DOWN-REGULATION or DESTRUCTION of PITUITARY RECEPTORS:

Downregulation of Receptors - "the unusually rapid **loss of receptor activity** called '**downregulation**' has been confused with receptor blockade [blocking the receptor] and is now understood to be due to a **disappearance of the receptor.**" (13)

1. "Continuous therapy with leuprolide [Lupron] apparently produces a **decrease** in the number of **pituitary GnRH receptors.**" (14)
2. Friedman et al stated that "**down-regulation of pituitary GnRH receptors** is usually achieved" "between treatment weeks 2 through 7." (15)

H. The Hormone Profile of a Woman on Lupron DOES NOT MATCH The Hormone Profile of a Woman in Menopause.

A. FSH & LH (Gonadotropins) Levels

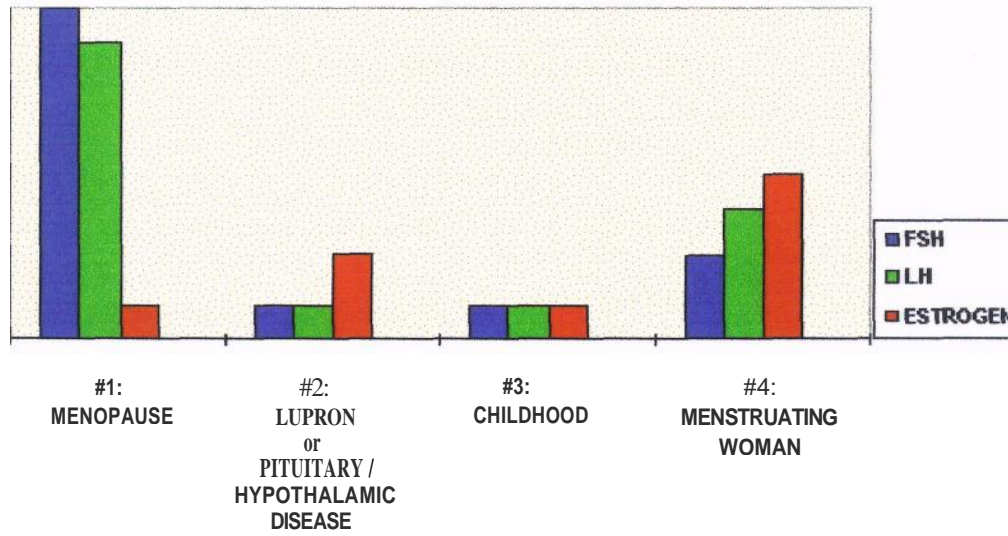
B. Estrogen (Estradiol) Levels

A. FSH & LH Levels In Menopause vs. Lupron: (HYPERgonadotrophic Hypogonadism vs. HYPOgonadotrophic Hypogonadism)

Hypogonadotropic - decreased FSH and LH [occurs with Lupron]
Hypergonadotropic - increased FSH and LH [occurs in menopause]
Hypogonadism - low estrogen / testosterone levels.

FSH - Follicle stimulating hormone
LH - Luteinizing hormone

Chart I. COMPARISON OF FSH, LH & ESTROGEN LEVELS* (* approximate values)



1. Lupron causes "hypogonadotropic [decreased FSH & LH] hypogonadism" and **both surgical ovariectomy [removal of ovaries] and menopause** cause "hypergonadotrophic [**increased FSH & LH**] hypogonadism." (7)
2. Kurabayashi et al stated that **hypogonadism** due to the administration of GnRHa is **different** from that caused by **surgical ovariectomy [removal of ovaries] or menopause.**" (7)
3. **In gonadal failure associated with low estradiol [estrogen] levels in women, gonadotropin [FSH, LH] measurements help separate primary from central hypogonadism:**
 - a. high gonadotropin [increased FSH, LH] concentrations are indicative of primary gonadal failure [See **Chart I.#1** above];
 - b. **low or normal gonadotropin [decreased FSH, LH] concentrations suggest hypothalamic or pituitary disease [See Chart L #2 above]."** (8)

Table I. HORMONAL PROFILE IN NORMAL MENSTRUATING WOMEN and MENOPAUSE

NORMAL MENSTRUATING WOMAN			
Hormone	Early Follicular Phase \ (1)	Range of All Cycles (1)	1 MENOPAUSE (1)
[Estradiol (E2) (pg/ml):	23-56	23 - 500	lower than 20 *
[Follicle Stimulating Honnone (FSH) [(mIU/ml):	5-28	5-41	30 - 170
[Luteinizing Hormone (LH) (mIU/ml):	5-26	2-187	30 - 150
Progesterone (ng/ml):	0.2-0.6	0.2-32	lower than 0.2

Table II. FSH & LH LEVELS IN MENOPAUSE vs. LUPRON

	Follicle Stimulating Hormone (FSH)	Luteinizing Hormone (LH)	Estrogen
MENOPAUSE <u>HYPERgonadotropic Hypogonadism</u>	Increases	Increases	Decreases
LUPRON <u>HYPOgonadotropic Hypogonadism</u>	Decreases	Decreases	Decreases

B. Estrogen Levels In Menopause vs. Lupron

1. ESTROGEN LEVELS IN MENOPAUSE:

- a. Barbieri stated that a "severely hypoestrogenic state is an estradiol [E2] concentration of 10 pg/ml." (2)
- b. A menopausal level of estradiol (E2) is equal to or less than 20 pg/ml. (See Table 1 above)

2. ESTROGEN LEVELS WITH LUPRON:

- a. According to FDA documents that examined the suppression of estradiol levels (E2) in women taking Lupron for endometriosis, when "monthly E2 levels were drawn, it appears that at month 2 and 4, mean E2 levels were higher than the upper limits of normal for postmenopausal E2 levels." (3) (See Table III below and compare to Table I)
- b. The drug company (TAP/Abbott) stated that "complete E2 suppression is NOT required for treatment of symptoms of endometriosis. In fact, lack of ovulation, probably plays a major role. They provided some papers to substantiate their claim." (3)

Table III Estradiol Levels of Lupron Patients Reported to the FDA (3)

MONTH	Mean (Average) E2 levels (pg/ml)	
2	38	NOT A MENOPAUSAL LEVEL (Menopause =<20 pg/ml)
3	19	
4	39	NOT A MENOPAUSAL LEVEL (Menopause =<20 pg/ml)
5	21	BORDERLINE (Menopause =<20 pg/ml)
6	14	

- c. In this study [SEE Table III above] "E2 [estrogen] levels were done every month, thus there is a great deal of information." (3)
In the next study done for endometriosis, and studies for their fibroid application, "E2 [estrogen] levels were only done at 3 and 6 months, providing incomplete information." (3)
- d. "Most of the patients with high E2 [estrogen] levels had either menstrual bleeding or 'breakthrough' bleeding." (3)
 - "Instances of spotting were reported on at least one occasion after suppression* of menses in 17 of the 27 [63%] LA [Lupron] patients." (3) *" Suppression was defined as no menstrual-like bleeding for more than 60 days."
 - "68% of lupron patients noted irregular bleeding." (3)

THIS IS A WORK IN PROGRESS

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