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The battalion of Love Brigade is nothing but hormones and neurotransmitters secreted in our own body and create this elusive magic dance. Emotion, Breathing, Heart rate, Relaxation, peacefulness. Tension or anxiety, Thinking of stepping on a rattlesnake, or Catching a snowflake on your tongue, or Thinking of a Romantic kiss are all steered by a host of chemical actions and reactions within every human body. Why do we want what we want and why we go for it over and over again. **Dr. Deepak Jumani**, a noted Sexual Health Physician and Counselor, a Diplomate and American Board certified Clinical Sexologist discusses the truth of sex, sexuality, male and female sexual dysfunctions through this column.

Chemistry of Intimacy



"Clearly, our mating dance, the desires that drive and frustrate us, the bonds we make, the love we give and take, the hearts we break, the differences that delight and infuriate us, the mystery of attraction, 'sexual chemistry,' the agonies and ecstasies of intimacy - all this and more, is influenced by the ever-changing bouillabaisse of chemicals in our bodies-the hormones", that I think of is "a sex soup."

There is a force, which excites our bodies, that expresses our identities, that makes us fill all our imaginations and that touches our soul. It has always been within us. It connects our deepest self with the world outside. Sex is a long subject, where cultures and natures collide. Can we navigate through the mysteries of sex? Can we find out a logic to this intense driving force of desire? Can we develop

Sexual Intelligence that deepens our pleasures and gives us greater awareness of ourselves? One thing that makes sexual desires so puzzling is the fact that men and women tend to experience it differently. Our brains are hard wired with unique maze of triggers and over a period of time we create our own pathways to satisfaction and at times in its competitiveness it is easy to get lost.

Let us understand the basics of a hormone. Its a chemical secreted into blood by endocrine glands or specialized glandular cells in brain, viscera, or neuroendocrine system. They are either proteins, steroids or peptides. They circulate and affect target organs & cells that have receptors for them. They are regulated by other hormones, neurotransmitters or feedback loops. Hormones are "dictators" they tell other substances



what to do and how to behave. Some are “bullies” wrecking havoc in human moods and behaviour.

A neurotransmitter is a chemical produced and released by brain or nerve cells to induce activity in other brain or nerve cells. Like hormones, they can be “dictators” and “bullies” of human moods and behavior.

LET’S MEET THE BATTALION OF LOVE BRIGADE

DHEA – Desire

The most abundant hormone in the human body, most sex hormones are derived from DHEA, It is involved in sex drive, orgasm, and sex appeal, increases drive more in women than men, it’s a Pheromone precursor, Exercise increases DHEA - Birth control pills decrease, it Peaks at age 25 and then starts declining.

Pheromones – Attract

Nicknamed, ‘Perfume’ it is produced at Various sites on skin. It Creates a sense of well-being and intimacy, produces more sensual feeling than raw lust, it may act on brain & nervous system through the vomero nasal organ (VMO). Animals use to mark territory or repel competition as well as to attract.

Oxytocin – Bonding (‘superglue’ triggered by touch),

Produced in Hypothalamus, its function in the human body is human bonding (mating, parenting, sex), spikes during orgasm, produced in response to, or anticipation of, touch, Stimulates uterine contractions in delivery. It may stimulate contractions of ejaculatory tract, and causes contraction of alveoli in mammary glands forcing milk into the nipples.

PEA – Euphoria - The romantic ‘love’ molecule

Produced In brain neurons it acts as a stimulants, spikes at orgasm, ovulation and also causes giddiness and excitement. That is why chocolate and NutraSweets are known as libido boosters. Stimulated by anticipation,



erotica or fantasy, it is an active element during “love at first sight”

Estrogen – Receptive sex drive

Nicknamed Marilyn Monroe, it is produced in adrenal glands, ovaries, testes, adipose tissue (fat), and the brain. It takes part in vaginal lubrication, body scent & texture, Stabilizes mood and improves cognition and reactions.

Testosterone – Desire (assertive sex drive)

Antidepressant in all sexes, Is pulsatile (15 min), fluctuates daily and seasonally, Increases erotic thought and fantasy, Males average 10 times the T level of women

Serotonin – Switches sex drive on & off

Produced in brain neurons it regulates sexual aggressiveness & partner discrimination. (high cool/low hot), High Serotonin = (hypo sexual) Peaceful, sexually selective, inhibits drive & orgasm, Low Serotonin = (hypersexual) Aggressive, sexually indiscriminate, anxious, impulsive, rapid ejaculation, More abundant and influential in females. There exists a Serotonin and Testosterone seesaw. Serotonin / Testosterone Seesaw.

Dopamine – Pleasure

“Addicts” us to each other, this pleasure Junkie is produced in the hypothalamus. Its intrinsic to sexual attraction, desire, arousal, response, orgasm and satisfaction. It Increases sex drive & facilitates orgasm and is reciprocal to oxytocin.



pheromone transmission and perception, uterine contractility, sensitivity to oxytocin, it Reduces dopamine & pleasure, it Can cause depression and irritability, it Increases fluid retention & weight gain.

Prolactin – Diminishes Sex Drive (stimulates nursing)

Its Nicknamed Moo Juice and Produced in the Pituitary gland. It promotes lactation and can be a cause of low sex drive in nursing mothers. Involved in sperm production & genital maintenance, it surges during stress, it’s high levels decrease testosterone.

Vasopressin – Regulates desire & attachment (monogamy)

Nicknamed as Monogamy molecule. It is produced in Pituitary gland and has a “tempering” influence on social sexual behavior and phenomenal communication. It improves memory and cognition and activates attention and focus on sexual stimuli

Comprehensive Care

There are valuable supplements to therapy, it is critical that they are not used as substitutes for therapy. Both patients and physicians often have difficulty in discussing sexual issues and many physicians are unaware

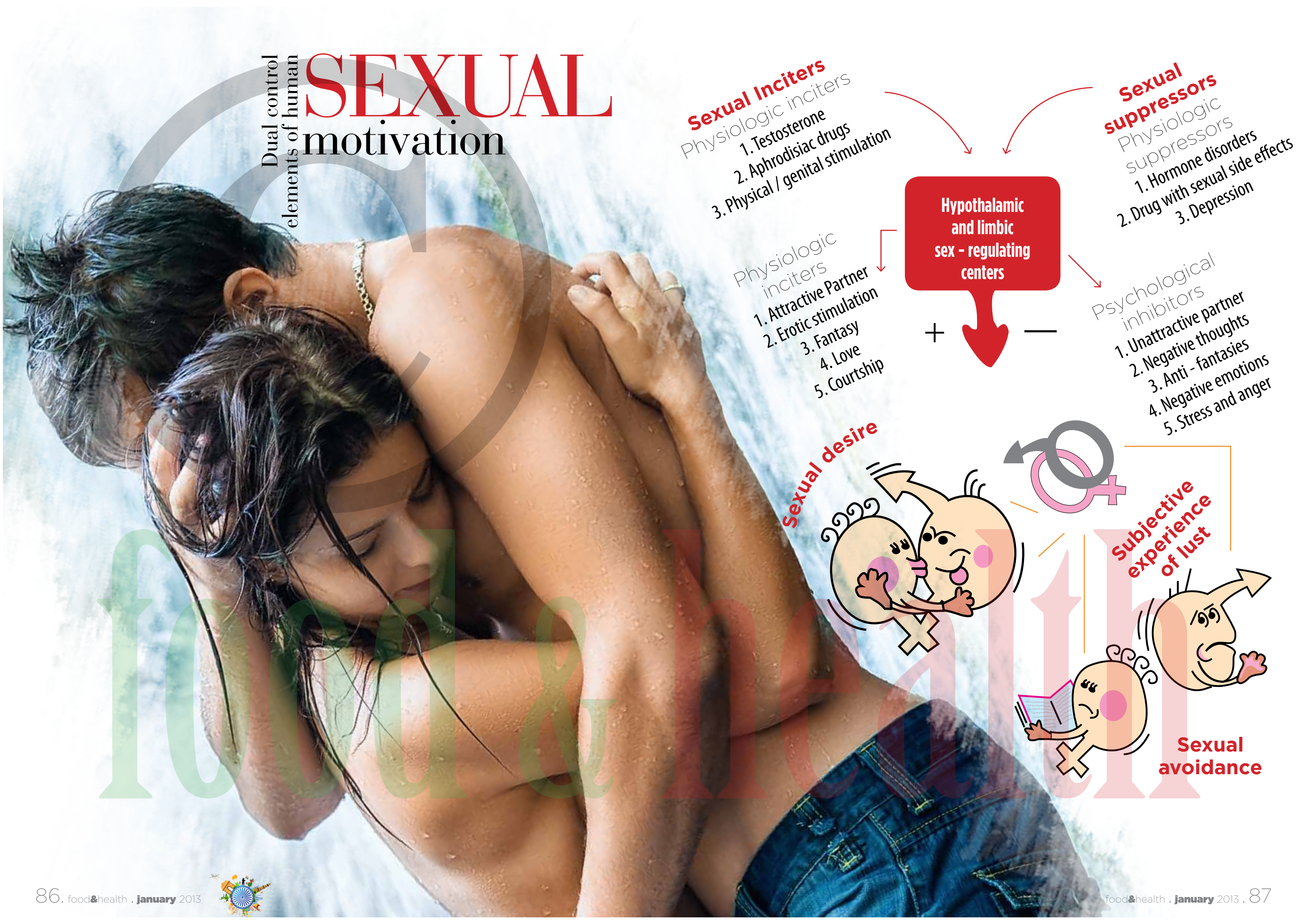


Progesterone – Repels (kills sex drive, promotes nurturing)

Nicknamed as Antiaphrodisiac and is Produced – Ovary (in the corpus luteum), it promotes nurturing and protective behavior and supports breast feeding, Inhibits sex drive, decreases testosterone, genital sensation, touch perception,

of their own ignorance in this area. The challenge sexual medicine is facing today is to blend together a ‘medicine without a soul’ which pays little attention to the emotions, concerns, and affective dynamics associated with medical illnesses, and a ‘psychology without a body’, which still under appreciates the neurobiologic basis for any feeling, memory, emotion or thought”.





SEXUAL motivation

Dual control elements of human

- Sexual Inciters**
Physiologic inciters
- 1. Testosterone
 - 2. Aphrodisiac drugs
 - 3. Physical / genital stimulation

- Sexual suppressors**
Physiologic suppressors
- 1. Hormone disorders
 - 2. Drug with sexual side effects
 - 3. Depression

- Physiologic inciters
- 1. Attractive Partner
 - 2. Erotic stimulation
 - 3. Fantasy
 - 4. Love
 - 5. Courtship

Hypothalamic and limbic sex - regulating centers

- Psychological inhibitors
- 1. Unattractive partner
 - 2. Negative thoughts
 - 3. Anti - fantasies
 - 4. Negative emotions
 - 5. Stress and anger

Sexual desire

Subjective experience of lust

Sexual avoidance

