

# Endocrine System, Chakras and associated body structures

Through an integrative and wholistic [*sic*] view of the glandular system we can better understand the function of the hormones on the mind-body complex. Viewing the endocrine system as a series of isolated glands throughout the body which hormonally effect the chemical processes of the body is a very limited understanding of the whole. Rather, the endocrine system as well as the cardiovascular system work together in an intelligent manor to transport chi in the form of hormone to its target destination. Futhermore, the endocrine structure is only the center structure of the physical manifestation of a greater “energetic organ” known as a chakra (Pangaea School, 2006).

## CROWN CHAKRA

*Sahasrara Chakra - Thousand fold*

Location: Top of head

Element: Space (thought)

Function: Information, thought, understanding

Inner State: Bliss

Glands: Pituitary, Hypothalamus

Other Parts: Cerebral cortex, central nervous system

Malfunction: Depression, alienation, confusion, boredom, apathy, inability to learn

Color: Violet, white, gold

Sense: Wisdom

Sound: Om

Vowel: Ing as in Sing

Petals: 10,000

Planets: Uranus

Metal: Gold

Ghuna: Sattvas

Totem: Eagle, Honey Bee, Spider

(Pangaea School, 2006), (Wheels of Life, 1987).

Sahasrara is generally considered to be the chakra of pure consciousness. Its role may be envisioned somewhat similarly to that of the pituitary gland, which secretes hormones to communicate to the rest of the endocrine system and also connects to the central nervous system via the hypothalamus. The thalamus is thought to have a key role in the physical basis of consciousness. Symbolized by a lotus with one thousand petals, it is located at the crown of the head. Sahasrara is represented by the colour violet and it involves such issues as inner wisdom and the death of the body. Sahasrara's inner aspect deals with the release of karma, physical action with meditation, mental action with universal

consciousness and unity, and emotional action with "being-ness"  
(Wikimedia Foundation, 2006).

- ❖ Hypothalamus “great master gland”
  - Stimulates the anterior pituitary gland secretion
  - Inhibits the anterior pituitary gland secretion

...by regulating stimulation and inhibition of the the anterior pituitary gland the hypothalamus also regulates:

- secretion of thyroid hormones
  - secretion of adrenal cortex hormones
  - development of ovarian follicles and secretion of estrogens
  - sperm growth and production
  - ovarian follicle and ovum
  - secretion of estrogen, triggers ovulation, development of corpus luteum
    - define: corpus luteum (plural corpora lutea) – (anatomy) A yellow mass of cells that forms from an ovarian follicle during the luteal phase of the menstrual cycle in mammals; it secretes steroid hormones.
  - Stimulates testes to secrete testosterone
  - Stimulates growth in all organs, mobilizes food molecules causing an increase in blood glucose concentration
  - Stimulates breast development during pregnancy and milk secretion and letdown after pregnancy
- (Wikimedia Foundation, 2010)

### THIRD EYE CHAKRA

*Ajna Chakra – To perceive, to command, 3rd eye*

Location: Center of head slightly above eye level

Element: Space (light)

Function: Seeing, intuition

Glands: Pineal, Pituitary

Other Parts: Legs, feet, bones, large intestine, teeth

Malfunction: Blindness, headaches, nightmares, eyestrain, blurred vision

Color: Indigo

Sense: 6th sense

Sound: Om, krham

Vowel: mmmm

Petals: 2

Planets: Jupiter, Neptune

Metal: Silver

Ghuna: Sattva

Totem: Owl

(Pangaea School, 2006), (Wheels of Life, 1987).

Ajna (along with Bindu, also known as the third eye chakra) is linked to the pineal gland which may inform a model of its envisioning. The pineal gland is a light sensitive gland that produces the hormone melatonin which regulates sleep and awakening. Ajna is symbolised by a lotus with two petals, and corresponds to the colour white, indigo or deep blue. Ajna's key issues involve balancing the higher & lower selves and trusting inner guidance. Ajna's inner aspect relates to the access of intuition. Emotionally, Ajna deals with clarity on an intuitive level (Wikimedia Foundation, 2006).

❖ Pineal Gland

- Inhibits hormones that affect the ovaries, controls the bodies internal clock

❖ Pituitary “master gland”

Anterior

- Stimulates secretion of thyroid hormones
- Stimulates secretion of adrenal cortex hormones
- Stimulates development of ovarian follicles and secretion of estrogens
- Stimulates sperm growth and production
- Stimulates ovarian follicle and ovum
- Secretion of estrogen, triggers ovulation, development of corpus luteum
- Stimulates testes to secrete testosterone
- Stimulates growth in all organs, mobilizes food molecules causing an increase in blood glucose concentration
- Stimulates breast development during pregnancy and milk secretion and letdown after pregnancy

Posterior

- Stimulates retention of water by the kidneys
- Stimulates uterine contractions at the end of pregnancy, stimulates release of milk into breast ducts
- Contraction of cervix and vagina
- Involved in orgasm, trust between people, temperature, activity, wakefulness

(Wikimedia Foundation, 2010)

## THROAT CHAKRA

*Visuddha Chakra – Purification, Throat*

Location: Throat

Element: Space (sound)

Function: communication, creativity

Inner State: Synthesis of ideas into symbols

Outer Manifestation: Vibration

Glands: Thyroid, parathyroid

Other Parts: Neck, shoulders, arms, hands

Malfunction: Sore throat, stiff neck, colds, thyroid problems, hearing problems

Color: blue

Sense: hearing

Sound: Ham

Vowel: Eee

Petals: 16

Tarot:

Planets: Mercury

Metal: Mercury

Ghuna: Rajas, satvvas

Totem: Elephant, bull, lion

(Pangaea School, 2006), (Wheels of Life, 1987).

Vishuddha (also Vishuddhi) may be understood as relating to communication and growth through expression. This chakra is paralleled to the thyroid, a gland that is also in the throat and which produces thyroid hormone, responsible for growth and maturation. Symbolised by a lotus with sixteen petals. Vishuddha is characterized by the color light or pale blue, or turquoise. It governs such issues as self-expression and communication, as discussed above. Physically, Vishuddha governs communication, emotionally it governs independence, mentally it governs fluent thought, and spiritually, it governs a sense of security (Wikimedia Foundation, 2006).

### ❖ Thyroid

- Stimulates the energy metabolism of all cells
- Inhibits the breakdown of bone, causes a decrease in blood calcium concentration
- Construction of bone

### ❖ Para-thyroid

- Stimulates the breakdown of bone; causes an increase in blood calcium concentration
- Activate vitamin D

(Wikimedia Foundation, 2010)

## HEART CHAKRA

*Anahata Chakra – Unstruck, Heart*

Location: Heart

Element: Air

Function: Love

Inner State: Compassion, love

Glands: Thymus

Other Parts: Lungs, heart, pericardium, arms, hands

Malfunction: Asthma, high blood pressure, heart disease, lung disease

Color: Green

Sound: Yam lam

Vowel: Ay as in play

Petals: 12

Tarot: The Swords

Planets: Venus

Metal: Copper

Ghuna: Rajas or Sattvas

Totem: Antelope, birds, dove

(Pangaea School, 2006), (Wheels of Life, 1987).

Anahata, or Anahata-puri, or padma-sundara is related to the thymus, located in the chest. The thymus is an element of the immune system as well as being part of the endocrine system. It produces the T cells responsible for fending off disease and may be adversely affected by stress. Anahata is symbolised by a lotus flower with twelve petals. (See also heartmind). Anahata is related to the colours green or pink. Key issues involving Anahata involve complex emotions, compassion, tenderness, unconditional love, equilibrium, rejection and well being. Physically Anahata governs circulation, emotionally it governs unconditional love for the self and others, mentally it governs passion, and spiritually it governs devotion (Wikimedia Foundation, 2006).

- ❖ Thymus “master gland of the immune system”
  - Promotes immune-system cells
  
- ❖ Heart
  - Reduces blood pressure, blood water, sodium, fats
  
- ❖ Skeletal muscle
  - Platelet production, blood sugar, and thyroid hormone production (Wikimedia Foundation, 2010)

## SOLOR CHAKRA

### *Manipura Chakra – Lustrous gem*

Location: Navel to solar plexus

Element: Fire

Function: Will, power, assertiveness

Inner State: Laughter, joy, anger

Outer Manifestation: Plasma, bile

Glands: Pancreas, adrenals

Other Parts: Digestive system, muscles

Malfunction: Ulcers, diabetes, hypoglycemia, digestive disorders

Color: Yellow

Sense:

Sound: Ram

Vowel: Ah as in Father

Petals: 10

Tarot: The Wands

Planets: Mars, Sun

Metal: Iron

Ghuna: Rajas

Totem: Ram

(Pangaea School, 2006), (Wheels of Life, 1987).

Manipura or manipuraka is related to the metabolic and digestive systems. Manipura is believed to correspond to Islets of Langerhans,[27] which are groups of cells in the pancreas, as well as the outer adrenal glands and the adrenal cortex. These play a valuable role in digestion, the conversion of food matter into energy for the body. Symbolised by a lotus with ten petals. The colour that corresponds to Manipura is yellow. Key issues governed by Manipura are issues of personal power, fear, anxiety, opinion-formation, introversion, and transition from simple or base emotions to complex. Physically, Manipura governs digestion, mentally it governs personal power, emotionally it governs expansiveness, and spiritually, all matters of growth (Wikimedia Foundation, 2006).

#### ❖ Pancreas

- Increases blood glucose concentration
- Promotes glucose entry into cells (decreases blood glucose concentration)
- Stimulates liver and skeletal muscle to intake sugars from blood

#### ❖ Stomach

- Stimulate appetite
- Stimulate pituitary anterior lobe
- Increase food intake and decrease physical activity
- Stimulate liver, pancreas, and duodenum
- Lowers blood flow and contractions in small intestine

- ❖ Duodenum
  - Stimulate release of digestive enzymes from pancreas and gallbladder
  
- ❖ Liver
  - Insulin like effects, regulates cell growth and development
  - Vasoconstriction and stimulates adrenals
  - Stimulates platelet production
 (Wikimedia Foundation, 2010)

## SACRAL CHAKRA

*Svadhithana Chakra – Sweetness, Sacral*

Location: Lower abdomen, genitals, womb

Element: Water

Function: Desire, pleasure, sexuality, procreation

Inner State: Feelings

Outer Manifestation: Liquid

Glands: Ovaries, testicles

Other Parts: womb, genitals, kidney, bladder, circulatory system

Malfunction: Impotence, frigidity, uterine, bladder, or kidney trouble, stiff lower back

Color: Orange

Sense: Taste

Sound: Vam

Vowel: Oo as in due

Petals: 6

Tarot: The Cups

Planets: Moon

Metal: Tin

Ghuna: Tamas

Totem: fish, sea creatures

(Pangaea School, 2006), (Wheels of Life, 1987).

Swadhithana, Svadisthana or adhishtana is located in the sacrum (hence the name) is considered to correspond to the testes or the ovaries that produce the various sex hormones involved in the reproductive cycle. Svadisthana is also considered to be related to, more generally, the genitourinary system and the adrenals. The Sacral Chakra is symbolized by a lotus with six petals, and corresponds to the colour orange. The key issues involving Svadisthana are relationships, violence, addictions, basic emotional needs, and pleasure. Physically, Svadisthana governs reproduction, mentally it governs creativity, emotionally it governs joy, and spiritually it governs enthusiasm (Wikimedia Foundation, 2006).

- ❖ Gonads

## Ovaries

- Promotes development and maintenance of female sexual characteristics
- Promotes conditions required for pregnancy

## Testis

- Promotes development and maintenance of male sexual characteristics

### ❖ Placenta

- Support pregnancy
- Inhibit immune response towards fetus
- Decrease uterine contraction
- Inhibit lactation
- Inhibit onset of labor
- Support fetal production of hormones
- Increase insulin

### ❖ Uterus

- Milk production
- Widens pubic bone during labor
- Relaxes uterine musculature

(Wikimedia Foundation, 2010)

## ROOT CHAKRA -

Muladhara Chakra - Root Support

coccygeal

Location: Perineum, base of spine, coccygeal plexus

Element: Earth

Function: Survival, grounding

Inner State: Stillness, security, stability

Rights: Right to be here, right to have

Outer Manifestation: Solid

Glands: Adrenals

Other Parts: Legs, feet, bones, large intestine, teeth

Malfunction: Weight problems, hemorrhoids, constipation, sciatica, degenerative arthritis, knee problems

Color: red

Sense: smell

Sound: Lam

Vowel: O as in Soap

Petals: 4

Tarot: The Pentacles

Planets: Saturn, Earth

Metal: Lead

Ghuna: Tamas

Totem: Elephant, ox, bull

(Pangaea School, 2006), (Wheels of Life, 1987).



Muladhara or root chakra is related to instinct, security, survival and also to basic human potentiality. This centre is located in the region between the genitals and the anus. Although no endocrine organ is placed here, it is said to relate to the gonads and the adrenal medulla, responsible for the fight and flight response when survival is under threat. There is a muscle located in this region that controls ejaculation in the sexual act of the human male. A parallel is charted between the sperm cell and the ovum where the genetic code lies coiled and the kundalini. Muladhara is symbolised by a lotus with four petals and the colour red. Key issues involve sexuality, lust and obsession. Physically, Muladhara governs sexuality, mentally it governs stability, emotionally it governs sensuality, and spiritually it governs a sense of security.[30]

Woodroffe also describes 7 head chakras (including Ajna and Sahasrara) in his other Indian text sources. Lowest to highest they are:

Talu/Talana/Lalana, Ajna, Manas, Soma, Brahmaandra, Sri (inside Sahasrara), Sahasrara (Wikimedia Foundation, 2006).

#### ❖ Adrenal Glands

##### Cortex

- Regulates the electrolyte and fluid homeostasis
- Increases blood glucose concentration
  
- Hormones which can have an anti-inflammatory and anti-immunity, anti-allergy effects
- Stimulates sexual drive

##### Medulla

- Prolong and intensify the sympathetic nervous response during stress (Wikimedia Foundation, 2010)

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