



## Lesson 21: Deeper Dive into Marma Classification (Mamsa, Sira, Snayu, Asthi, Sandhi)

In this advanced Kalari Uzhichil (Kalari massage) lesson, we explore the classical **marma** point classification in detail and bridge it to modern anatomy and therapeutic practice. **Marma** are the vital energy points of the body described in Ayurveda - when injured they can cause serious harm or even death, but when skillfully stimulated they can promote healing. We will review the five types of marma as per *Sushruta Samhita* (an authoritative Ayurvedic text), their anatomical features, Sanskrit references, and how each type is approached in Kalari Uzhichil massage.

### Classical Definition and Importance of Marma

Ayurveda defines a *marma* point as a juncture in the body where multiple tissues meet. Sushruta states that a marma is formed by the union of *mamsa* (muscles), *sira* (vessels), *snayu* (ligaments/tendons), *asthi* (bones), and *sandhi* (joints). In Sanskrit it is said: “*mriyate asmin iti marma*” - “**that which causes death when injured is called a marma.**” In other words, marmas are vital spots where trauma can be catastrophic. Acharya Sushruta further emphasizes the critical nature of these points by noting *saptauttaram marmaśatam*, meaning **107 marma points** in the human body. These 107 points (sometimes counted as 108 including the mind) are distributed across the limbs, trunk, and head, and they function as key energy gateways linking the physical and subtle body.

**Sanskrit Reference:** “*Saptauttaram marmaśatam*” (Su. Sha. 6) - “**the total number of marma points is 107.**”

In classical texts, marma points are not only anatomical landmarks but also seats of **prana** (life energy). *Acharya Charaka* described marmas as points where pain is felt intensely due to the presence of vital life forces, and *Acharya Vagbhata* explained the word *marma* itself as “*marma = mar (prana) + ma (residence)*”, i.e. a place where life resides. Thus, understanding marma is crucial both for treating injuries (as excessive pressure or injury to a marma can disrupt life forces) and for healing practices (gentle stimulation can balance energy flow).

*Marma points are distributed throughout the human body (front and back). Each point is a junction of muscles, vessels, ligaments, bones, and joints. Knowing their locations and types is essential in Ayurveda and Kalari therapy.*

### Classification of Marma Points by Tissue (Sushruta's 5 Categories)

Classical Ayurveda, especially *Sushruta Samhita*, classifies the 107 marma points into **five categories** based on the predominant tissue at the site (called *Rachana Bheda* or structural classification). All marmas contain all five tissue types, but each is named after the component that is most significant at that location. The five types are:

- **Mamsa Marma** - points where **muscle (mamsa)** predominates
- **Sira Marma** - points where **blood vessels (sira)** predominate
- **Snayu Marma** - points where **ligaments/tendons (snayu)** predominate
- **Asthi Marma** - points where **bone (asthi)** predominates
- **Sandhi Marma** - points where **joints (sandhi)** predominate

According to Sushruta, there are a fixed number of marmas in each category, as summarized below:

Marma Category	Predominant Tissue	Number of Points	Examples (Region)
<b>Mamsa Marma</b>	Muscle (Māṃsa)	11	<i>Talahridaya</i> (center of palm/sole), <i>Stana Rohita</i> (above breast)
<b>Sira Marma</b>	Vessel (Sirā - blood vessels)	41	<i>Sthapani</i> (between eyebrows), <i>Nabhi</i> (navel)
<b>Snayu Marma</b>	Ligament/Tendon (Snāyu)	27	<i>Kakshadhara</i> (axilla region), <i>Ani</i> (above knee/elbow)
<b>Asthi Marma</b>	Bone (Asthi)	8	<i>Shankha</i> (temple of head), <i>Katikataruna</i> (pelvic bone)
<b>Sandhi Marma</b>	Joint (Sandhi)	20	<i>Janu</i> (knee joint), <i>Manibandha</i> (wrist joint)

*Sushruta Samhita* explicitly lists the names of the marmas in each category. For example, the **muscle-based marmas**



(**mamsa**) include *Talahridaya* (the “heart of the hand/foot” located at the center of each palm and sole, 4 points total), *Indrabasti* (center of forearms and calves, 4 points), *Guda* (anus, 1 point), and *Stana Rohita* (area above the nipples on the chest, 2 points). The **vessel marmas (sira)** include vital points like *Sthapani* (forehead between the eyebrows, 1 point), *Apanga* (outer corners of the eyes, 2 points), *Hridaya* (cardiac region, 1 point), *Nabhi* (navel, 1 point), and *Urvi* (mid-thigh and mid-arm, 4 points) among many others. Each category covers points spread in various body regions – for instance, *Snayu marmas* like *Kakshadhara* lie in the torso (axillary area), while others like *Kshipra* are in the extremities (web between thumb and index finger, or big toe and second toe).

**Note:** Other classical texts provide slight variations. For example, *Vagbhata’s Ashtanga Hridaya* also recognizes 107 marmas but counts 10 Mamsa and 37 Sira (splitting out 9 as *Dhamani* or arterial points). Here we follow Sushruta’s widely accepted classification of 11/41/27/8/20 in each category.

In the following sections, we delve into each marma type, highlighting their anatomical features, sensitivity, therapeutic importance, and injury risk level. We will also see how Kalari Uzhichil massage works with each type – knowing **which points to stimulate for healing** and **which to handle with caution**, along with how pressure techniques vary by marma type.

## Mamsa Marmas (Muscle-based Points)

**Mamsa marmas** are marma points predominantly situated in **muscle tissue** or fleshy areas. There are 11 such points in Sushruta’s classification. These include points like *Talahridaya* (literally “heart of the palm/foot”) found at the center of each palm and sole, and *Stana Rohita* located above the breasts on the chest. Because they lie in muscular regions, Mamsa marmas are typically well-cushioned by flesh. Anatomically, they often correspond to **muscular trigger points or motor points** in modern terms – areas where muscle fibers and motor nerve endings concentrate. For example, *Guda marma* (at the anal region) involves the pelvic floor musculature, and *Indrabasti marmas* (mid-forearm and mid-calf) are in the bulk of forearm and calf muscles.

- **Sensitivity & Risk:** Muscle marmas tend to be **sensitive but usually not immediately fatal** if injured. Trauma to a mamsa marma often causes intense pain or local swelling (*Rujakara* effect) rather than instantaneous death. However, some muscle marmas overlie vital structures (e.g. *Stana Rohita* is near the heart and lungs). Injury to these can lead to serious complications; for instance, trauma to the chest muscle marma could cause breathing difficulty or cardiac shock even if the muscle is the primary structure. Generally, though, Mamsa points are **forgiving** compared to vascular or bone points – they predominantly cause pain and maybe functional impairment, not usually permanent deformity or fatality.
- **Therapeutic Importance:** In Ayurveda and Kalari therapy, muscle marmas are often **stimulated to relieve muscular pain and improve circulation** in the surrounding tissues. These points respond well to firm pressure and deep massage, since the muscle can handle moderate force. For example, pressing the *Talahridaya* marma in the sole/palm can refresh and energize the limbs, and massaging around the *Indrabasti* (calf) marma can relieve calf cramps or forearm strain. Mamsa marmas are key in treating **muscular injuries, myofascial pain, or fatigue** – by working on these, a Kalari practitioner can loosen knots and increase blood flow to the muscles.
- **Kalari Uzhichil Application: Kalari Uzhichil** (martial art massage) uses long strokes and kneading that often engage muscle marmas. Practitioners will **apply relatively firm pressure** on mamsa points to release deep-seated tension. For instance, they might thumb-press the *Ani* marma (located above the knee in the quads, and above the elbow in the biceps) to ease muscle stiffness in the thighs or arms. These points are stimulated for healing and revitalization of muscle tissue. **Caution:** While muscle points tolerate pressure, a Kalari therapist is still mindful of underlying organs – e.g. with *Stana Rohita* on the chest, pressure is gentle and directed outward, not deep, to avoid stressing the heart/lungs. In general, Mamsa marmas are **safe to work on with moderate to firm pressure**, making them prime targets in sports massage and Kalari therapy for boosting muscle recovery.
- **Modern Correlation:** Many mamsa marmas correspond to known anatomical structures. *Talahridaya* in the hand, for example, lies near the palmar aponeurosis and is analogous to the **Pericardium-8 acupressure point** in Chinese medicine, often pressed to calm the mind and invigorate the body. *Guda marma* aligns with the coccygeal plexus area – modern physiology recognizes that trauma to the tailbone and surrounding muscles can cause nervous shock (sciatica, pelvic pain), which resonates with the classical warning that *Guda marma* injury is serious. Understanding these correlations helps modern therapists appreciate why traditional texts placed such importance



on these “muscle” points.

## Sira Marmas (Vascular/Vein Points)

**Sira marmas** are marma points predominantly involving **blood vessels (sira)** – including veins, arteries, and in some interpretations nerve channels (*nadi*) as well. Sushruta describes 41 sira marmas, making this the largest category. These points are often located at sites of major blood flow or vascular plexuses. Classical examples include *Hridaya marma* (the heart region), *Nabhi marma* (navel, abdominal aorta region), *Neela and Manya* (neck points corresponding to jugular/carotid vessels), and *Sthapani* (between the eyebrows, where important arteries and veins of the forehead meet). Essentially, sira marmas mark places where pulse and life-blood are strongly felt – think of the temple, neck, wrist, groin, etc., which in modern anatomy house major arteries (temporal, carotid, radial, femoral arteries respectively).

- **Anatomical Features:** Vascular marmas lie in regions rich in blood supply and often nerve supply. For instance, *Apanga marma* (at the outer corner of the eye) is where superficial temporal vessels and a branch of the facial nerve pass; *Urvi marma* (mid-thigh) is right over the course of the femoral artery and vein; *Lohitaksha/Vitapa marma* (in the groin) corresponds to the femoral triangle containing major vessels. These points tend to be slightly softer or depressible (due to vessel or pulse presence) rather than bony. If you palpate a sira marma like the side of the neck, you can often literally feel the pulse (carotid pulse at *Manya marma*). This shows how intimately connected they are to circulation.
- **Sensitivity & Risk: Sira marmas are among the most delicate and high-risk points in the body.** Because they involve major blood vessels (and often nerves), injury to these points can cause rapid, severe consequences. Sushruta classifies many sira marmas as *Pranahara Marmas* – meaning trauma can be fatal. For example, *Hridaya* (heart) and *Nabhi* (navel) marma injuries are said to cause death within moments or hours. Likewise, *Shankha marma* (temple region) – though technically an *Asthi* (bone) marma, it overlaps a highly vascular area – is listed as **Sadyah-Pranahara**, immediately fatal if pierced. Modern anatomy confirms this: a severe blow to the temple can rupture the **middle meningeal artery** inside, causing fatal intracranial bleeding. Similarly, pressure on *Manya marma* (carotid sinus) can lead to fainting or stroke by disturbing blood flow to the brain. Thus, sira points carry a **high risk level** – hemorrhage, loss of consciousness, shock, or neurologic damage are possible if these vital vessels are cut or obstructed. Even non-lethal injuries can cause long-term harm; e.g. damage to leg vessel marmas might lead to gangrene or paralysis of the limb (hence many sira marmas are *Kalantara-Pranahara* – death in days/weeks if not treated).
- **Therapeutic Importance:** In therapeutic massage and marma chikitsa, **sira marmas are approached very carefully**. These points are often stimulated *lightly* to promote blood flow or disperse energy blockages, rather than with deep pressure. Gentle circular massage on a point like *Sthapani* (forehead) can help **calm the mind, relieve headaches and sinus congestion** by influencing blood/nerve supply to the head. Mild stimulation of *Apanga* (temple) relieves eye strain and stress, but one must never strike this area. *Hridaya marma* (over the heart) might be very softly massaged in clockwise motions to reduce anxiety and normalize heart rhythm (some Ayurvedic therapies even use aroma or energy healing over *Hridaya* rather than physical pressure). **The goal with sira marma therapy is often to improve circulation and nerve signals:** for instance, massaging *Nabhi* (navel) can enhance digestion and blood supply to abdominal organs, and pressing *Urvi* (thigh) moderately can increase blood flow in the legs and help in sciatica or varicose veins. Due to their direct link with the circulatory system, these points are powerful for **vitalizing organs and balancing the flow of prana (life energy)**, but only when handled correctly.
- **Kalari Uzhichil Application:** In Kalari Uzhichil, practitioners are **highly cautious with sira marmas**. These points are known in Kalari *payattu* (martial art) as vulnerable targets to disable an opponent, so in healing, the therapist ensures not to accidentally cause harm. **Pressure is kept light and precise.** For example, the Kalari massage of the neck avoids heavy pressure on the carotid artery (*Manya dhamani* area); instead, the therapist might use a gliding stroke along the sides of the neck to relax muscles and gently stimulate blood flow without pressing directly on the vessel marma. *Vitapa marma* in the groin (associated with femoral artery and also reproductive organs) is another point of extreme caution – only very gentle, broad pressure is used to improve circulation, and sudden force is strictly avoided (as it could cause severe pain or trauma to nerves/vessels in that region). When treating headaches or nervous disorders, a Kalari expert will lightly massage points like *Sthapani* and *Shankha* with the fingertips, often with oil, to soothe and heal. **In summary:** Sira marmas are **generally not “pressed hard”** in Kalari massage; they are usually **touched, stroked, or gently acupressed**. The therapist’s knowledge of marma anatomy ensures healing stimulation (e.g. improving blood flow or cooling an area) without



crossing into dangerous pressure that could occlude a vessel or overstimulate a nerve.

- **Modern Correlation:** Many sira marmas correspond to medically recognized danger zones or vital sign spots. The carotid sinus (*Manya marma*) is well known in modern medicine – excessive carotid pressure can cause reflex bradycardia or stroke, confirming Sushruta’s caution. *Nabhi marma* at the umbilicus corresponds to the location of the **solar plexus and aortic bifurcation**; in trauma care, a severe blow here (solar plexus punch) can knock the wind out or even stop the heart reflexively – a direct parallel to Ayurvedic teachings. *Sira matrika* in the neck (perhaps the jugular vein network) and *Shringataka marma* (a junction of nerves/vessels in the face) might be correlated with the cavernous sinus or carotid arterial circle, explaining why their injury leads to sensory organ damage (vision, hearing loss, etc., as described in Ayurveda). By understanding these correlations, one sees that *Sira marmas* integrate closely with the **neurovascular system**. This insight helps modern therapists and doctors appreciate why even a seemingly small neck or temple point can have outsized effects on consciousness and health – because they involve critical blood flow to the brain and body.

## Snayu Marmas (Ligament/Tendon/Nerve Points)

**Snayu marmas** are marma points predominantly involving **snāyu**, a term that includes ligaments, tendons, and in some contexts nerves or sinew-like tissues. There are 27 snayu marmas in Sushruta’s list. These points often occur near **joints or musculo-tendinous junctions**, where tendons and ligaments concentrate, or where nerve plexuses traverse. Examples are *Kurpara marma* (at the elbow crease, though *Kurpara* is more of a joint, it has strong tendon components around), *Kakshadhara marma* (in the axilla, involving the tendinous/muscular attachments of shoulder and possibly the brachial plexus nerves), *Ani marma* (above the knee and elbow, where tendons of the thigh/arm attach), and *Kshipra marma* (web between thumb and index finger, or great toe and second toe, which is rich in ligamentous tissue and acupuncture-like nerve junctions). Essentially, Snayu marmas mark points of **structural support and neural input** – they are like the “hinge spots” of the body where multiple soft tissues converge.

- **Anatomical Features:** Snayu points are typically found in **flexor regions, tendon insertions, or fibrous support areas**. For instance, *Kakshadhara* is located at the border of chest and armpit, corresponding to where the pectoral muscles and axillary fascia/ligaments are, as well as the bundle of nerves (brachial plexus) that runs to the arm. *Vitapa marma* (in the groin near the inner thigh) lies where tendons of the thigh adductors and the spermatic cord (with nerves & vessels) are located. *Vidhura marma* (behind the ear lobe) is near the mastoid process, where ligamentous attachments of neck and a major nerve (greater auricular nerve) pass – a tender spot indeed. These points often feel **corded or tight** when palpated on an injured person, because they involve connective tissues. Unlike mamsa points which feel fleshy, snayu marmas might feel like a taut band or a notch (for example, *Ani marma* above the knee can be felt as a tight band of quadriceps tendon above the patella). They are structural points that hold the body together, so to speak.
- **Sensitivity & Risk: Snayu marmas are very prone to causing disability (Vaikalyakara) if injured.** Damage to the ligaments or nerves at these points can lead to loss of function, contractures, or paralysis. For example, *Vitapa marma* (groin) is famously known – injury here can cause impotence or loss of leg function (since it can sever neural supply to the leg or reproductive organs). Ancient texts warn that *Vitapa* injury leads to loss of use of the limb and infertility in men. *Kakshadhara* (axilla) injury might cause the arm to wither or become paralyzed (brachial plexus damage). *Vidhura* (behind ear) injury can cause deafness (indeed the mastoid area is critical for the auditory nerve). Many snayu marmas are classified as **Vaikalyakara Marmas** – meaning an injury **won’t immediately kill, but can deform or incapacitate**. This fits with modern understanding: tearing a major ligament or nerve leads to loss of function in that part. Pain is also a feature – these points can be very painful when hit (think of hitting your “funny bone” at the elbow – that’s near a snayu marma and sends a nerve jolt). However, pure pain (*Ruja*) is often transient; the bigger concern is structural damage. For example, severing the Achilles tendon (near *Kurcha marma* around the ankle) cripples the ability to walk. So, the risk level for snayu marmas is **primarily long-term disability**, though a few (like those close to vital nerves in neck/head) could contribute to life-threatening scenarios if swelling compresses vital pathways.
- **Therapeutic Importance:** Snayu marmas are crucial in treating **orthopedic problems, nerve compressions, and musculoskeletal alignment issues**. Kalari and Ayurveda practitioners focus on these points to **relieve nerve blockages and improve flexibility**. For instance, gentle stimulation of *Kakshadhara* (under the arm) can alleviate a “pinched nerve” feeling in the shoulder and hand, by relaxing the brachial plexus area. *Ani marmas* above joints are often massaged to improve limb extension – by working on the tendons above the knee or elbow, one can reduce stiffness in those joints. A classical technique in marma therapy for snayu points is a combination



of **pressure and stretching**: the therapist may press the marma while simultaneously extending the associated limb, to gently release a trapped nerve or tight ligament. For example, pressure on *Kshipra marma* (between thumb and finger) while stretching the patient's finger has been used to relieve tension headaches and stimulate nerves (this point, analogous to an acupuncture point LI-4, has a known effect on relieving headache by nerve reflex). Likewise, *Kurcha and Kurchashira marmas* (instep of foot and ankle region) are massaged to help conditions like plantar fasciitis or sprained ankle – they are ligament-rich regions, and proper stimulation can promote healing of those connective tissues. In summary, Snayu marmas are **stimulated for healing of connective tissue and neuromuscular ailments**: they help in conditions like frozen shoulder, sciatica, muscle spasms, and ligament injuries. The therapeutic pressure on these is usually moderate – enough to affect deep connective tissue but not so hard as to inflame nerves.

- **Kalari Uzhichil Application:** Kalari masters pay special attention to **aligning and strengthening snayu marmas** during massage. These are the points that often get strained in martial arts training (think ligaments of joints, etc.), so Uzhichil aims to **prevent injuries by keeping them supple**. Techniques like **thumb rolling and friction massage** are used on snayu points. For instance, on *Kakshadhara* and *Ani* points, a therapist might use circular friction with herbal oil to generate heat and loosen the ligaments. **Caution:** While more pressure can be used here than on sira (vascular) points, the therapist must be careful not to overstretch or jab these points, as that can aggravate the tendons or nerves. Sudden sharp pressure on a snayu marma can cause a reflex spasm or sharp neural pain (imagine the reflex when the doctor taps your knee – a mild stimulation of a tendon causes a kick). In Kalari massage, therefore, snayu points are often warmed and massaged gradually. The practitioner might also apply specific herbal pastes or oils (like *Mahanarayan oil*) on these marmas to facilitate ligament healing. An experienced Kalari healer knows that properly handled snayu marmas can dramatically improve a warrior's agility and recovery – for example, working the *Krikatika marma* (junction of neck and shoulder, a snayu/sandhi region) can relieve neck stiffness and prevent cervical spine issues common in fighters. **Pressure Varies:** generally *moderate, deep pressure* (using fingers, heel of hand, or even elbow) can be applied on larger snayu marmas in thick musculotendinous areas (like *Urvi or Ani* on the thigh), whereas **milder pressure** is used where nerves are superficial (like *Vidhura* behind the ear, which is pressed very gently to help tinnitus or neck tension). The practitioner constantly gauges the patient's response – the goal is a “good pain” that releases the tension, not a sharp pain that indicates potential harm.
- **Modern Correlation:** Many snayu marmas correlate with what we today call **neuro-muscular trigger points or ligament attachment sites**. For example, *Kakshadhara marma* corresponds to the area of the **brachial plexus** under the pectoral muscle – modern medicine knows this as the bundle of nerves that can cause numbness/tingling in the arm if compressed (thoracic outlet syndrome). This explains why Ayurveda considers *Kakshadhara* critical: injury there can paralyze the arm (brachial plexus injury). *Ani marma* corresponds to the **musculotendinous junctions above knee/elbow** – interestingly, sports medicine often massages above a joint (not just on it) to relieve strain, essentially mirroring marma therapy. *Kshipra marma* in the hand/foot web is famous in reflexology and acupuncture as a point to relieve headaches and boost immunity – consistent with Ayurvedic use for stimulating the nervous system. *Vidhura marma* (behind ear) coincides with the mastoid process where lymph nodes and a branch of the vagus nerve reside; modern auricular therapy uses this region to address ear problems and vertigo, much as marma therapy does. These parallels affirm that snayu marmas are spots where **modern anatomy finds concentrated connective tissue and neural connections** – validating the ancient insight that working on them can influence distant organs and functions (because nerves connect those points to internal organs).

## Asthi Marmas (Bone/Bony Points)

**Asthi marmas** are marma points predominantly associated with **bones (asthi)** or very hard structures of the body. Sushruta enumerates only 8 asthi marmas, making it the smallest category. Despite being few, they are extremely critical. These points are located at **bony prominences or skeletal junctures** that protect vital organs. Classic asthi marmas include *Shankha* (the temples of the skull), *Adhipati* (the crown of the head, near the anterior fontanelle), *Katika Taruna* (the two pelvic bone prominences near the sacrum), *Nitamba* (the two buttock/hip bone region points), and *Amsa Phalaka* (shoulder blades). Essentially, asthi marmas coincide with **vulnerable bony spots** – often where the bone is superficial and delicate (like skull sutures) or where bone encases important nervous tissue (like the spine).

- **Anatomical Features:** These points are characterized by underlying bone; palpation often finds a hard structure with maybe minimal soft cover. *Shankha* is at the junction of skull bones (the temple, where frontal, parietal,



sphenoid, and temporal bones meet – known in anatomy as the **pterion**, the thinnest part of the skull). *Simanta* (not listed in Sushruta's 8 asthi because Simanta are technically 5 suture points classified as sandhi marmas, but closely related) are the skull suture lines. *Adhipati* is the center top of the head (bregma region) – once the baby's soft spot, later a fibrous junction of skull bones. *Katikataruna* corresponds to the **sacroiliac joint region** at the back of the pelvis – a bony junction critical for weight bearing. *Ansaphalaka* is the medial border of the scapula (shoulder blade) – a bony ridge protecting the upper back. These points often have **limited flesh padding**, making them susceptible to direct impact. They are frequently at **axial skeleton locations** – head, spine, chest – where bone injuries can endanger the central nervous system.

- **Sensitivity & Risk: Asthi marmas carry a very high risk, often classified as fatal or grievous when injured.** Bones themselves are hard, but an injury that fractures or penetrates at these points usually harms underlying vital organs (brain, spinal cord, etc.). For example, *Shankha marma* (temple) is famously deadly – even a moderate blow can fracture the thin temporal bone and tear the middle meningeal artery beneath, causing epidural hemorrhage and sudden death. Sushruta lists Shankha under *Sadyah Pranahara* (instant death class). *Adhipati* (crown) injury – essentially trauma to the top of skull/brain – is also instantaneously fatal (think of depressed skull fractures). *Katikataruna* (sacral joints) injury could sever the spinal cord or cause paralysis of the lower body, so while not as instant as head points, they can be *Kalantara Pranahara* (death after some time) or *Vaikalyakara* (causing lifelong paralysis). The shoulder blade (*Amsaphalaka*) protects the lungs – a stab here can collapse a lung. So, any asthi marma injury tends to be severe: either **life-threatening or permanently debilitating**. Even minor trauma can be very painful; bone is richly innervated (bone periosteum carries nerves), so hitting an asthi marma produces deep, nauseating pain. Additionally, **recovery is difficult** – bone injuries take long to heal, and if misaligned (like a skull fracture), they may never fully recover normal function. Thus, the **risk level** is top-tier for asthi marmas: maximum caution is warranted.
- **Therapeutic Importance:** Interestingly, in therapy, asthi marmas are not often “stimulated” in the aggressive sense, but rather **soothed and protected**. In Ayurveda, they relate to **Vata dosha** (the energy of wind/movement, which resides in bones). Gentle work on these points can alleviate deep pain and neurological issues. For instance, *Katikataruna marma* (pelvic bone points) is often massaged softly to relieve low back pain and sciatica – the therapist might apply warm oil and gently press around the dimples of the lower back (sacroiliac region) to pacify Vata and relax the sacral nerves. *Shankha marma* (temple) is often the site for applying herbal paste or oil (like *brahmi oil*) in Ayurveda to relieve migraines – very light rubbing here can reduce extreme headaches by calming the temporal artery and trigeminal nerve. *Adhipati* (crown) is the location of the **“crown chakra” (Sahasrara)**; in Ayurvedic energy healing, this spot is anointed rather than pressed, to promote mental peace and connection. Thus, therapeutically, we handle asthi points with **care and minimal pressure**, focusing on pain relief and grounding. If there is a joint issue like sacroiliac dysfunction or an old tailbone injury, a skilled therapist might do subtle mobilization: e.g., traction on the spine and a mild press on *Katikataruna* to encourage alignment. **Bone marmas also guide us diagnostically** – tenderness at an asthi marma can indicate underlying problems. For example, if a person winces at mild pressure on *Nitamba* (posterior hip bone), it may suggest sacroiliac inflammation or hip joint issues.
- **Kalari Uzhichil Application:** In Kalari massage, **extreme caution** is used around asthi marmas. These are points one **never strikes or applies strong force to**, since they can be easily harmed. Instead, the therapist often **encircles** the area or works on adjacent muscles to indirectly benefit the bone marma. For example, for *Shankha* (temple), a Kalari therapist will massage the surrounding scalp and face muscles to relieve tension headaches, but will avoid hard pressure directly on the temple bone. They might use a cooling oil and gently hold the temple point to calm the person. For *Katikataruna* (pelvis), the therapist could stretch the lower back and press along the spine or glutes, but will not jab the sacroiliac joint itself. **Pressure techniques** here are typically **soft pressing, circular rubbing, or just supportive touch**. An important aspect is **alignment**: Kalari experts often adjust a person's posture and gently traction joints (like gently pulling the head to decompress neck bones at *Krikatika*, or rotating the hip to ease *Nitamba*). These maneuvers target the bone marmas in a subtle way – by creating space and proper alignment, they reduce pressure on these sensitive points. Kalari Uzhichil also uses medicated oils that strengthen bones (like *murivenna* or *kseerabala oil*) applied on asthi marma regions to facilitate healing of any micro-fractures or bone stress from training. **In summary:** Kalari massage treats asthi marmas with **respectful minimalism** – they are typically **shielded and nurtured, not actively pressed**. If a warrior has pain at a bone marma, the healer's job is to relieve surrounding strain and promote internal healing (sometimes external splints or supports are also used, as in traditional bone setting).
- **Modern Correlation:** Modern medicine corroborates the critical nature of these bony points. The *pterion* (*Shankha*) is known as the weakest part of the skull – exactly why Sushruta warned of *Shankha marma* injuries



causing sudden death via arterial rupture. *The crown of the head (Adhipati)* corresponds to the anterior fontanelle in infants – it's soft and unprotected early in life, and even in adults a major trauma there can damage the superior sagittal sinus (a large venous channel). *The sacroiliac (Katikataruna)* and *coccyx (which could be considered around Guda region)* are known in chiropractic as sources of severe pain and nerve dysfunction if misaligned. Many asthi marmas are effectively the **locations of important neurological exits**: *Krikatika* (upper neck) is where brainstem meets spinal cord; an injury there (like atlanto-occipital dislocation) is often fatal – not surprisingly, Sushruta called the two *Krikatika* points *Sadyah pranahara* too. The *shoulder blade (Ansaphalaka)* protects the brachial plexus and top of lungs; a stab above/below it can cause pneumothorax or nerve damage. Modern emergency medicine pays attention to these spots: for example, EMTs know that a blow to the side of the head (temple) is more dangerous than many other places, and that a broken pelvis (katikataruna region) can cause massive internal bleeding. Thus, what Ayurveda codified as “Asthi marmas – handle with care” aligns with our current understanding of **trauma danger zones**. On a gentler note, modern osteopathic and craniosacral therapies also “touch” these spots lightly to release deep tension – very much in line with Ayurvedic marma therapy for bone points.

## Sandhi Marmas (Joint Points)

**Sandhi marmas** are marma points predominantly located at **joints (sandhi)** – the junctions where two or more bones meet. There are 20 sandhi marmas in Sushruta's classification. This category covers many major joints of the body: for example, *Janu marma* (the knees, 2 points), *Kurpara marma* (the elbows, 2 points), *Manibandha* (the wrists, 2 points), *Gulpha* (the ankles, 2 points), and also certain unique joints in the skull like *Simanta* (the five cranial suture lines) and *Adhipati* (the junction of cranial bones at the top) which are counted here as joints by Sushruta. Additionally, *Krikatika* (junction of head and spine at the neck, 2 points) and *Kukundara* (hip joints, 2 points) fall in this category. Essentially, every major articulation that can bend or rotate has a marma associated with it.

- **Anatomical Features:** Sandhi marmas coincide with **synovial joints or important junctures** in the skeleton. These areas are characterized by joint capsules, ligaments, bursae, and often a concentration of nerves crossing the joint. For example, *Janu marma* corresponds anatomically to the knee joint – comprising the femur-tibia articulation, patella, cartilage, and ligaments (ACL/PCL, etc.). *Kurpara* is the elbow joint (humeroulnar joint) with its ligaments and the ulnar nerve crossing (hence the funny bone sensation). *Manibandha* and *Gulpha* are the complex joints of wrist and ankle with multiple small bones. Being joint points, sandhi marmas often involve **multiple tissue types in one spot**: bone surfaces, tendons, synovial fluid, etc. They are truly “meeting points” of the body's framework. Palpating these points, one usually finds a depression or a prominent bony knob: e.g., the front of the shoulder (Amsa sandhi) has the acromioclavicular joint; the back of the head (Krikatika) feels like a depression at the base of skull/top of neck. One key feature is that joints are inherently less padded and more mobile – so these marmas have some mobility under the skin.
- **Sensitivity & Risk: Joint marmas, when injured, typically cause loss of function or chronic pain rather than immediate death**, with a few exceptions in the head/neck. They are mostly categorized as *Vaikalyakara* (causing deformity) or *Rujakara* (causing pain) injuries in Ayurveda. For example, trauma to *Janu marma* (knee) – say a bad dislocation or ligament tear – won't kill a person outright, but can cripple their walking ability (deformity of gait) if not healed properly. *Kurpara* (elbow) injury can limit arm movement or cause a permanent contracture (think of an improperly healed elbow fracture leading to a crooked arm). These outcomes reflect *Vaikalyata* (deformity). On the other hand, joints are richly innervated with pain fibers; a joint injury can be excruciating (*Ruja*). Anyone who has had a torn ACL or dislocated shoulder knows the intense pain and disability it brings. Sushruta's list of *Vaikalyakara* marmas includes several joints like *Kurpara*, *Janu*, *Vitapa*, *Kukundara* etc., whose injury causes enduring lameness or stiffness. A special case: the **Simanta** marmas on the skull (the 5 cranial sutures) and *Adhipati* are actually counted under sandhi because sutures join skull bones. Injury to these (like a fracture along a suture) can be fatal due to brain injury or severe deformity (depressed skull). In fact, *Adhipati* (crown) is considered a *Sadyah Pranahara sandhi marma* – a rare instance of a joint marma causing immediate death, due to its relation to the brain. *Krikatika* (atlas/axis joint at top of spine) is also life-threatening if broken (it can sever the spinal cord). So, while most limb joints are non-fatal injuries, some axial joints are critical. Overall, *risk level*: moderate to high – *moderate* for limb joints (due to disability risk), *high* for head/neck joints (due to life risk).
- **Therapeutic Importance:** Sandhi marmas are prime targets in therapies for **joint pain, arthritis, and mobility restoration**. Ayurvedic massage and **Panchakarma** treatments (like *Kati Basti* – a dough dam of oil on a joint)



often focus on these points. By stimulating a joint marma, one can improve synovial fluid circulation and ease stiffness. For instance, gently mobilizing and pressing around *Janu marma* is excellent for knee osteoarthritis – it relieves pain and increases range of motion. A specific therapy is *Marma Abhyanga* (marma massage) where circular motions are done around the patella (kneecap) to invigorate the joint. For *Kurpara* (elbow), massage can help conditions like tennis elbow by increasing blood flow to the tendons. Many sandhi points respond well to **heat and oil** – warm herbal oils (e.g., Mahanarayan oil, which is classical for joints) are rubbed into these marmas to nourish the joint. Moreover, Ayurvedic texts mention *basti* (medicated enema) for supporting sandhi marmas from inside, as joints are considered seats of vata which can cause degeneration if aggravated. Another important therapeutic aspect is **marma-chikitsa for spinal joints**: *Krikatika marmas* at the neck are massaged to relieve cervical spondylosis and tension headaches; *Kukundara* (hip joint) massage helps sciatica; *Prstha sandhi* (spinal joints generally) are aligned via stretching or mild traction. Therapists often combine marma pressure with passive movement – e.g., pressing the shoulder marma while rotating the arm to loosen a frozen shoulder. These approaches highlight that sandhi marma work is about **restoring smooth movement (saandhi means union and mobility)**.

- **Kalari Uzhichil Application:** Kalari massage places a strong emphasis on **maintaining joint health**, as flexible, strong joints are essential for a warrior's agility. In Uzhichil, joints (sandhi marmas) are often the focus of **stretching techniques and oil application**. The practitioner will methodically rotate and stretch each major joint after oil massage – for example, after warming up the knee area with oil, they may gently bend and extend the knee, possibly with foot pressure on the thigh to get a deeper stretch (a hallmark in Kalari massage is the use of feet for powerful strokes). They do this all while being mindful of the marma point. **Pressure on joint marmas is usually moderate and combined with movement**. For instance, at the shoulder (*Amsa sandhi*), the therapist might press the deltoid area (covering the joint) with one hand while circumducting the arm with the other hand – this can release a lot of tension. **Caution:** While joints can handle some pressure, Kalari experts avoid any sudden or extreme force that could dislocate or strain the joint. They are trained to detect the limit of a joint's range. Particularly for the neck (*Krikatika*), they may perform subtle neck traction but avoid high-velocity cracking (unlike a chiropractor) as the intention is gentle marma activation, not abrupt manipulation. For the skull sutures (*Simanta*), obviously no direct pressure is applied – instead, a head massage will indirectly stimulate blood flow in those sutures and relieve stress. **Overall, the pressure is varied:** large, robust joints like hips and knees might get firm pressure and even the therapist's body weight in stretches (e.g., pressing down on a bent knee); whereas delicate joints like the neck and small joints of hands/feet get light pressure and careful mobilization. Kalari Uzhichil also frequently uses **herbal poultices or steam** on joint marmas after massage to further relax and heal them – a practice consistent with Ayurvedic *svedana* (fomentation) for sandhi issues.
- **Modern Correlation:** Joint marmas correspond closely with what modern medicine knows as **common injury sites and acupuncture points for joints**. *Janu marma* aligns with the knee joint – orthopedic surgeons focus on exactly that spot for arthroscopy (e.g., repairing an ACL involves working at the center of the knee marma). *Kurpara* corresponds to the elbow – interestingly, an acupuncture point for elbow pain (Large Intestine 11 at the lateral elbow) is essentially at *Kurpara*. *Manibandha* and *Gulpha* marma correlate with well-known pressure points on the wrist and ankle used to treat arrhythmias and blood pressure (via the baroreceptor reflex at the wrist) or insomnia (ankle points in acupressure). *Krikatika* at the neck is where the **atlas** meets the skull – chiropractors often adjust this to treat headaches and vertigo, which parallels the marma therapy effect on those conditions. The cranial sutures (*Simantaka*) are of interest in craniosacral therapy; modern research shows slight movements in cranial bones can impact cerebrospinal fluid flow – giving some credence to why Ayurveda considered those junctions important and tied them to higher functions (like *Shiras marma* effects on sensory organs). Also, the phenomenon of “stingers” or nerve zings in sports injuries – like hitting the funny bone (ulnar nerve) at the elbow causing a shock down the arm – is essentially aggravating a sandhi marma. So, modern correlation confirms that **joints are hubs of multiple tissues and prone to injury/pain if misused**, validating the special status they get in marma science. Clinically, integrating marma knowledge with modern rehab can be fruitful: for example, physical therapy exercises combined with marma massage around a joint might accelerate recovery by both strengthening the joint and energetically rebalancing it.

## Clinical Utility of Marma Classification

Understanding marma classification has **practical therapeutic implications** in both Ayurveda and modern integrative medicine. By knowing which tissue is predominant at a marma, a healer can tailor the treatment to the patient's condition and avoid harmful techniques. Here are some key utilities and applications of this knowledge:



- **Targeted Pain Management:** If a patient has muscular pain (e.g. a strained calf muscle), the practitioner will focus on **mamsa marmas** in that region (like *Indrabasti* on the calf, *Janu* above it) to relieve the muscle spasm. The approach will be deep tissue massage since muscles respond to pressure. Conversely, if the pain is due to a pinched nerve or ligament strain (e.g. tennis elbow or sciatica), **snayu marmas** along the nerve path (*Kurpara* for elbow, *Kakshadhara* for shoulder nerve, *Katikataruna* for sciatic nerve root) are engaged with careful pressure and stretching to free the blockage. Joint pain (arthritis in knee or frozen shoulder) calls for working on **sandhi marmas** (like *Janu*, *Amsa*) with mobilization techniques and oil to improve joint lubrication. In sum, the classification directs the therapist **where and how** to treat: muscle type points for muscle issues, joint points for joint issues, etc., each with appropriate intensity.
- **Risk Avoidance and Safety:** Marma classification also serves as a **safety guide**. A practitioner aware that a certain point is a *Sira marma* (vascular) or *Asthi marma* (bone) will exercise caution to not use excessive force there. For example, during an Ayurvedic massage, the therapist avoids pressing hard on the abdomen around the navel because *Nabhi marma* (a Sira marma) lies there; instead they gently rotate their palm to aid digestion without harm. In acupuncture or acupressure contexts, knowledge of marma could advise against needling or heavy pressure on points like the temple or carotid sinus area, which could be dangerous – those are better treated with non-invasive methods. **Surgeons in ancient India** used marma knowledge to plan incisions safely, and even today, surgeons implicitly follow it (e.g., avoiding certain planes that could damage a nerve plexus or artery). In Kalari, a therapist knowing *Vitapa marma* (groin) can cause impotence will avoid any harsh techniques on the inner thigh, thus protecting the patient's fertility and nerve function.
- **Holistic Healing and Energy Work:** Each marma type also gives insight into the **energetics** of a condition. Mamsa (muscle) points are linked with the earth element and strength – so if someone feels weak or lethargic, stimulating muscle marmas can build strength (like pressing the soles and palms, *Talahridaya*, to ground and energize them). Sira (vessel) points carry the water and air elements (blood and prana flow) – treating these can influence systemic circulation and mental calmness (e.g., a gentle neck marma massage can reduce anxiety by improving blood flow to the brain and balancing prana). Snayu (ligament) points deal with the wind (Vata) in joints and nerves – working these helps remove subtle *vayu* blockages that cause things like neuralgia or twitches. Asthi (bone) points contain marrow and nerve centers – supporting them can boost immunity (marrow production) and stability (bone is our support; think of how head massage improves mental stability). Sandhi (joint) points govern bodily motion – keeping them healthy ensures freedom of movement and thus overall vitality in old age. Thus, a clinician can incorporate marma therapy as part of treating internal diseases too: e.g., pressing *Urvi marma* (thigh) can help improve blood quality and treat anemia (femoral artery and bone marrow stimulation), or massaging *Stanamula* (below breast, a sira marma) can support lung function in asthma by improving chest circulation.
- **Integration with Modern Anatomy:** Marma classification creates a **bridge between ancient and modern anatomy**, allowing an integrated approach. For instance, a physiotherapist might unknowingly be working on a marma when doing manual therapy on a patient's shoulder – understanding marma can refine their technique (they might realize they need to be gentler on the axilla because it's a snayu marma with a nerve plexus, and focus more on the deltoid muscle which is mamsa region). Conversely, an Ayurvedic practitioner with modern knowledge can correlate marma complaints with medical diagnostics: if a patient has severe tenderness at *Manipura Nabhi marma* (navel), the practitioner might suspect an aortic aneurysm or umbilical hernia and refer out for medical imaging, knowing a vascular marma issue could be serious. This holistic insight improves patient safety and outcomes.
- **Case Example - Treating Lower Back Pain:** Lower back pain can involve muscle strain, joint misalignment, and nerve compression. Using marma classification, an Ayurvedic therapist will treat *Katikataruna* (bone/joint marma at sacroiliac), *Prsta* or *Parshvasandhi* (spinal joint marmas), as well as *Kati marma region muscles*. They'll apply warm oil, gently press around the sacral dimples (*Katikataruna*), and stretch the spine (targeting sandhi and asthi). They'll also likely massage the hamstring area where *Ani* and *Kurcha marmas* (snayu, behind knee and calf) reside, because tight tendons there pull on the back. By addressing each component – muscle (mamsa), tendon (snayu), joint (sandhi), the back pain is relieved more completely. Modern medicine would call this a combination of myofascial release, neural mobilization, and joint adjustment – all encompassed seamlessly under marma therapy.

In conclusion, the classical marma classification into Mamsa, Sira, Snayu, Asthi, and Sandhi provides a **comprehensive framework to evaluate and treat the body**. It ensures that Kalari Uzhichil practitioners and Ayurvedic therapists know **which points to activate for healing and which to shield from harm**, how much pressure to use, and what outcome to expect. By integrating this ancient wisdom with modern anatomical knowledge, one gains a deeper understanding of the human body's vital spots – those where consciousness and flesh intersect – and can thereby promote health, recover



from injuries, and even prevent trauma in the warrior's arena of life.

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