

# Sacro Occipital Technique (SOT): Category Two: Systems integration

Harvey Getzoff

**Narrative:** The intent of this paper is to present my understanding of the principles of Sacro Occipital Technique (SOT), Category 2, and the resultant evaluation and adjustment procedures.

**Indexing Terms:** Sacro Occipital Technique (SOT); Chiropractic; SOT categories; SOT indicators; Sacroiliac joint; Nerve receptors; Arm Fossa test.

## Introduction

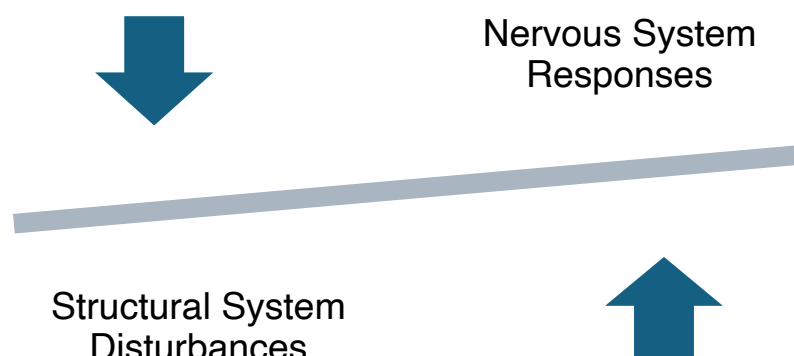
Sacro occipital Technique was founded and developed by Dr MB DeJarnette DC. SOT is based on the *'identification, via SOT indicators, (specific tests and observations) of the state of function of three primary systems of the body and the SOT adjustments needed to affect change'*. (1, 22) These functional systems are referred to as Category 1,2 and 3, three clinically definable but interrelated categories, (1, 22)

*'Category 2 refers to the functional stability of the body's weight-bearing structural system, primarily the sacroiliac, and its ability to receive sensory input, the integration of this input and the capacity of the body to respond to that input through the muscles while in the presence of a ligamentous (and cartilaginous) sacroiliac unilateral weight-bearing imbalance. Often the sacroiliac imbalance is a result of other structural disturbances throughout the structural system'. (22)*

... An SOT Category Two is common and the arm-fossae test is a most important diagnostic test to indicate the required blocking for correction ...'



Fig 1: Systems integration



The Nervous System is called upon to create weight-bearing stability (equilibrium) as the Structural System struggles to function.

*'A system has a tendency, especially in higher animals, to maintain internal stability, owing to the coordinated responses of its parts to any situation or stimulus that would tend to disturb its normal function'. (22, 4, 2)*

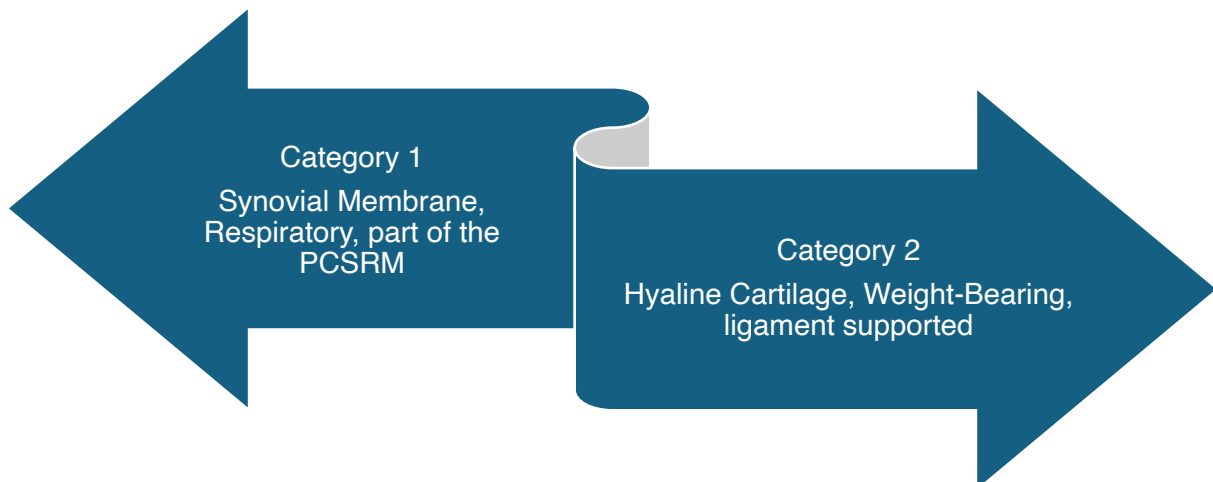
### The Weight-Bearing portion of the Sacroiliac Joint

While Category 1 addresses the needs of the *Primal Cranial Sacral Respiratory Mechanism* (PCSRM) and Category 3 addresses the needs of the lumbar spine and its related discs, Category 2 addresses the needs of the entire structural system inclusive of the cranium, all supported by its foundation the weight-bearing portion of the sacroiliac joint.

'The sacroiliac joint is both a respiratory joint, the synovial boot portion, and a ligamentous supported weight-bearing joint. The synovial boot portion is primary in regulating the inherent respiratory function of the PCSRM, (category 1) while the ligamentous portion of the sacroiliac is primary to the weight-bearing system (category 2)'. (5, 6)

DeJarnette states '*The sacroiliac joint has no muscular motivators. This is the only joint or articulation in the human body not endowed with voluntary muscle control*'. (5, 6) '*Man is an erect species and as such bears his total weight into the sacroiliac joints. It is for this reason that this part of the joint has no specific muscle control*'. (5, 6) Dr. DeJarnette further states '*The weight bearing sacroiliac articulation has a greater number of proprioceptor nerve endings of any like surface in the human body*'. (5, 6) ". (15) The SOT arm/fossae test evaluates the functional state of the weight bearing portion of the sacroiliac.

Fig 2: Systems integration



### The Arm/Fossae Test

The arm/fossae test is not a muscle test, which is stated repeatedly throughout Dr. DeJarnette's writings.

The arm/fossae test analyses the body's ability to respond through the muscle system to multiple sensory stimuli, eyes watching, ears listening, stimulation of the fossae (*Poupart's* ligament of the anterior pelvis a.k.a. the *inguinal ligament*) for touch sensitivity, and an arm pull to determine the muscle reaction to the heightened sensory stimulation presently taking place primarily in the affected fossae. (1) The '*fossae*' refers to *Poupart's* ligament. One of four areas of

Poupart's ligament (left and right, upper and lower) will be stimulated with an increase in sensitivity in the presence of corresponding ligamentous weight-bearing sacroiliac instability. This ligament (*poupart's*) receptor system responds to sacroiliac disturbances'.

DeJarnette wrote in his 1967 book *The Philosophy, Science and Art of SOT* that '*the arm/fossae test is the most exacting neurological and myological test a doctor of chiropractic can make and it requires a developing skill constantly renewed*'. (9)

### *Features of the Arm/Fossae Test*

- ▶ It determines the functional state of the weight-bearing portion of the sacroiliac joint and if positive it prioritises Category 2 as the category most in need of adjustment.
- ▶ It specifies the need for the Category 2 blocks to functionally position the weight-bearing portion of the sacroiliac joint. '*Blocking uses the patient's weight for the energy needed to move parts into position*'. (5, 6)
- ▶ It determines when the blocks have made the appropriate correction and need to be removed.
- ▶ It allows for analysing and comparing sacroiliac weight-bearing function from visit to visit and the effectiveness of the Category 2 adjustment plan.
- ▶ '*The leg measurement tells you how to block*'. (5, 6) (The exact placement of the blocks). '*The arm fossae test also tells you when the blocks are needed and when they have made the correction*'. (5,6)

Table 1: SOT Primary Category 2 Indicators

Indicator	Category 1	Category 2	Category 3
Plumbline visual analysis (8,5,6)	A-P sway	Lateral sway or deviation to one side	No sway, fixed, often with a lean
Rib #1/T #1 articulation (8, 5, 6)	Bilateral movement	Unilateral movement and bulge	No movement fixed
Arm/fossae test (1, 8, 5, 6)	Not definable	Definitely positive	Not definable

- ▶ **Plumbline visual analysis:** With the patient's eyes closed for 10 seconds and their feet in a fixed position on a footplate a Category two patient will sway from side to side or deviate to one side because of the instability of a unilateral weight-bearing portion of the sacroiliac joint.
- ▶ **Rib#1/T1 articulation:** When standing on the footplate the Category 2 patient will have a left or right thoracic 1/first rib articulation more fixed with more localised bulging than its opposite partner, this is all noted on cervical forward flexion.
- ▶ **The arm/fossae test:** The test will be definitely positive primarily because of a fossae (*poupart's* ligament) sensory reaction to a corresponding sacroiliac weight-bearing instability.

The arm/fossae test is positive when the patient cannot control their arm when pulled by the doctor. It is critical that the arm/fossae is done correctly. Refer to the appendix for the guidelines on proper execution of the arm/fossae test.

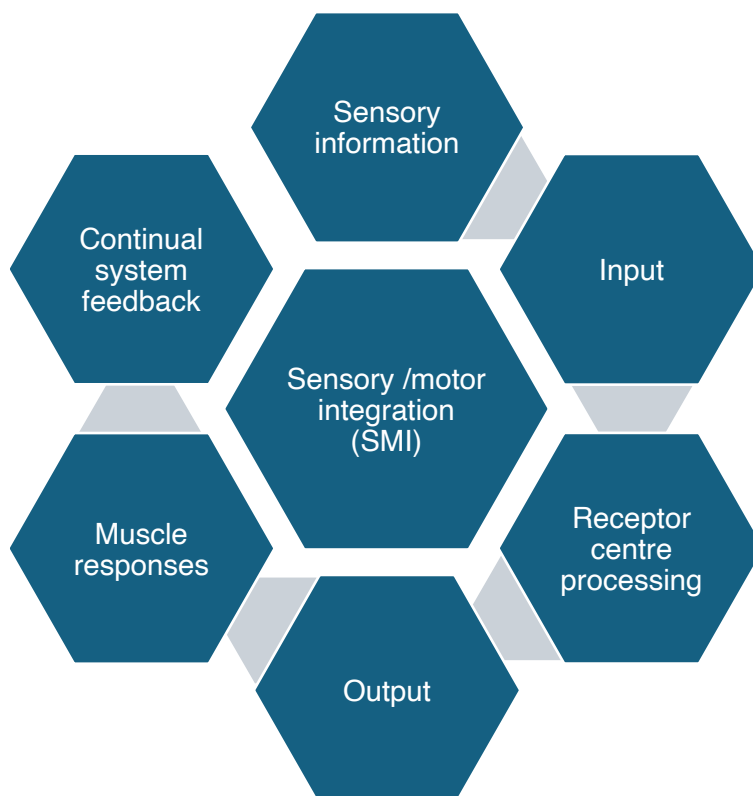
As previously stated, the key component of the weight-bearing system, the sacroiliac joint, when dysfunctional, is most often a result of other structural disturbance throughout the structural system. The table below references the key areas of concern when adjusting Category 2.

Table 2: SOT Primary Category 2 Indicators

Adjustments	Indicators
Cervical spine (1, 8, 5, 6, 18, 19)	Cervical Range of Motion (ROM), Stair Step, Figure 8
Psoas muscle (8, 5, 6)	Bilateral arm pullback, Unilateral difference.
Iliofemoral joint (8, 5, 6)	Ilio femoral rotation, Prone unilateral difference.
Thoracic, Lumbar spine (5, 6, 11, 13, 16)	Occipital fibers, Palpation of interspinous space.
Cranial sutures (7, 14, 21)	Head position, Underdevelopment side of cranium.
*Cranial Basic 2 (7, 14)	*Refer to basic 2 found later in this paper

Receptors: *'The major function of the Nervous System is to process incoming information in such a way that appropriate motor responses occur'.* (15, 20)

Fig 3: Sensory Motor Integration (SMI)



The arm/fossae test evaluates this process (Fig 3, SMI), which is in a heightened state (fossae sensory stimulation) when structural disturbances are present, primarily in the weight-bearing sacroiliac joint, indicating the need for blocks. Additional Category 2 adjustments further support the process. (Table 2)

### Adjusting Procedures, Category 2:

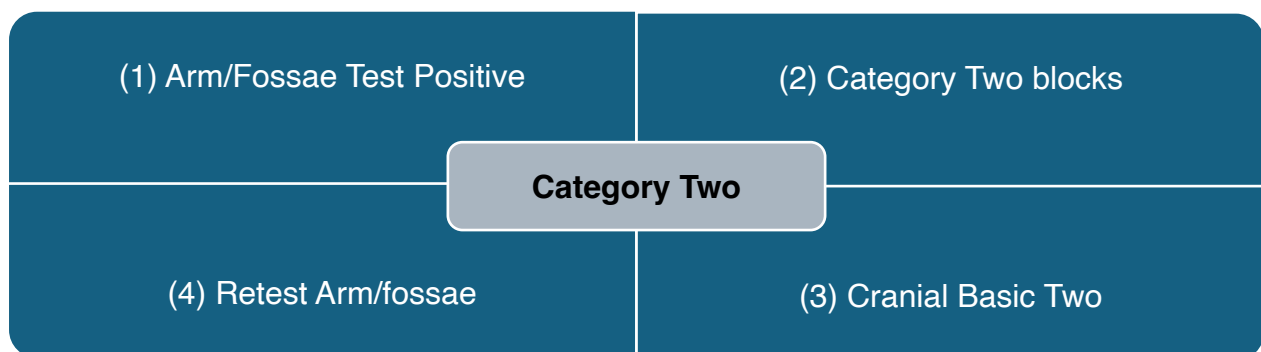
- ▶ Plumbline analysis to define the need for category 2 adjustment
- ▶ Psoas and iliofemoral joint analysis and adjustment as indicated
- ▶ Arm/fossae testing for blocks and the removal of the blocks. (Appendix)
- ▶ Cranial basic 2 while the patient is on the blocks.
- ▶ Cervical and cranial analysis and adjustment as indicated.

#### \*Basic 2

With the patient supine on the blocks and the doctor seated at the head of the table:

1. The Doctor's hand holds the occiput, with the other hands fingertips placed on the malar (zygoma) ridges, with the palm of the hand placed on the frontal
2. The patient dorsi flexes their feet as they deeply inhale and press their tongue to the roof of their mouth. While this is occurring, the doctor assists in the flexing of the occiput and frontal bones inferior
3. Then the patient fully exhales, relaxes their tongue and plantar flexes their feet as the doctor draws the occipital and the malar arches superior
4. The intention of this process is to rhythmically flex and extend both the sphenobasilar junction and the sacroiliac joint.
5. The Basic 2 adjustment can facilitate the primary needs of the cranium in making an effective category 2 adjustment.

Fig 4: Sequencing



### Discussion

Category 2 is thought to be the most utilised of the three SOT categories. *'The Category 2 patient load in all busy SOT offices is very heavy'*. (5, 6) Possibly because of its inclusion of the entire structural system along with additional supportive structures such as the psoas muscle and the cranial sutures.

A Category 2 adjustment although not direct for Category 1 (PCSRM) or category 3 (lumbar spine, lumbar disc) can have a substantial effect on the function of these systems. As long as the arm/fossae test is positive, Category 2 is the category most in need of adjustment. (1 5, 6)

If the Arm/fossa test is negative, on a subsequent patient office visit, then the assumption is that the sensory responses (the fossae) are being controlled and the sacroiliac joint is functional, and healing is occurring. No category 2 blocks are needed but other category indicators still need to be evaluated.

*'Nothing in SOT is done without a reason and no action is complete until it is reevaluated, all guided by indicators'. (1, 22)*

## Conclusion

'Dr DeJarnette addressed the understanding of human function and its identification and treatment by studying basic and primary systems of the body and putting them into three clinically definable but interrelated categories. These categories not only have methods of identification, called indicators and specific treatment protocols but they give us a model of function for which to strive'. (2, 22)

*'SOT Chiropractic is built on an assortment of adjustments and procedures that are methods driven, systems based, functionally oriented and all guided by an indicator system'. (19)* The model of function for Category 2 is the structural systems weight-bearing stability aided by the function of the nervous system. (Systems Integration)

As noted, weight-bearing in this paper refers to the stability of the weight-bearing portion of the sacroiliac joint and a positive arm fossae test is definitive for prioritising Category 2 as the category most in need of adjustment.

Tables #1 and #2 cite the indicators and the adjustments used in the Category 2 adjustment so that these processes can be referenced. Doing the Arm/fossae properly is a necessity therefore an arm/fossae proficiency check list is placed in the appendix at the end of this paper.

*'I honour Dr DeJarnette for his 70 plus years of extensive research and study all presented and explained in detail in his yearly seminar notes and teaching conferences. As stated in this paper's abstract, this paper presents my understanding of Dr. DeJarnette's writings and teachings of SOT's Category 2. My understanding of SOT is based on my 46 plus years of SOT practice and study'.*

Harvey Getzoff

DC

Private Practice

Marlton, NJ, USA

[harvgetz@hotmail.com](mailto:harvgetz@hotmail.com)

---

Cite: Getzoff H. Sacro Occipital Technique (SOT): Category Two: Systems integration. Asia-Pac Chiropr J. 2024;5.1. [apcj.net/Papers-Issue-5-1/#GetzoffSOTCat2](https://apcj.net/Papers-Issue-5-1/#GetzoffSOTCat2)

## References

1. Getzoff IH. A Critical Approach for Learning the Operating Principles of Sacro Occipital Technique (SOT) Chiropractic. *Asia-Pac Chropr. J.* 2023 ;3,4.
2. Getzoff IH. Sacro Occipital Technique Categories: A Systems Method of Chiropractic; *Journal Chiropractic Technique*; May 1999; 11(2);62-5.
3. Getzoff IH. Sacro Occipital Technique (SOT) Category Three: Predictability of Outcomes. *Asia-Pac. Chiropr. J* 2024: 4.3.
4. *Oxford University Dictionary*; Oxford University Press: 1997 Vol. 3.
5. DeJarnette MB. *Sacro Occipital Technique* 1980. Privately Published Nebraska City NB.166-179, 319-29.
6. DeJarnette MB. *Sacro Occipital Technique* 1984. Privately Published Nebraska City NB. 51,75,101,116-44, 245-255.
7. DeJarnette MB. *Cranial Technique*. Privately Published Nebraska City NB 1979-1980: 14.
8. Getzoff IH. *The SOT Indicator System with Additions: Pre and Post Adjustment Analysis*; 2019 *Sacro Occipital Research Proceedings* San Jose, CA. 2019: 1-6.
9. DeJarnette MB. *The Philosophy Science and Art of Sacro Occipital Technique*. Privately Published Nebraska City, NB. 1964.
10. Getzoff IH. *The Role of the Atlas Vertebrae in the Sacro Occipital Technique Category System*: 2012 *Sacro Occipital Research Conference Proceedings*. Atlanta, GA 2013: 78-81.
11. Getzoff IH. *Disc Technique and Adjusting Procedure for any Lumbar Discogenic Syndrome*. *Journal Chiropractic Medicine*. Fall 2000; 2(4):122-44.
12. Getzoff IH. *The Sitting Disc Technique and the Relationship to the Straight Leg Raise Test: A Retrospective Case Series of 30 Patients*. *Asia-Pac. Chiropr. J.* 2020: 1,2.
13. Getzoff IH. *Anterior Thoracic Adjusting and the Relationship to Cervical Flexion: A Retrospective Case Series of 24 Patients*. *Asia-Pac Chiropr J.* 2020; 1,2: online only. URL.
14. Getzoff IH. *A Primary Cranial Analysis and Adjusting Method for all three Sacro Occipital Technique (SOT) Categories: A Retrospective Study of 85 Patients*. *Asia-Pac Chiropr J.* 2023: 4.2. URL.
15. Guyton A, Hall J. *Textbook of Medical Physiology*. 12<sup>th</sup> Ed. Chapter 31: Organization of the Nervous System. WB Saunders CO. Philadelphia PA. 2010 URL.
16. Getzoff IH. *A Study of the Nature of SOT Occipital Fibers line 2. A Retrospective Study of 65 P. SOTO/USA Research Conference* 2012.
17. Getzoff IH. *SOT Procedures, case studies and standard Orthopedic Testing: A Case Series*. SOTO/USA Research Conference:2011.
18. Getzoff IH. *Sacro Occipital Technique (SOT) cervical Protocol: Analysis, Adjustment, Assessment: A Retrospective Case Series 48 patients*. SOTO/USA research Conference: 2014.
19. Getzoff IH. *The Management and Care: of Three Elderly Patients with Neck Pain*. SOTO/USA Research Conference. 2019.
20. Calliet R. *Neck and Arm Pain*. Published by F. A. Davis Company. Philadelphia PA. 1964, IX, X, 5.
21. Getzoff IH. *A Practical Guide to Cranial Adjusting*. Published by Weidner and Sons. Riverton N.J. 1996.
22. Getzoff IH. *Sacro Occipital Technique (SOT): A systems Driven Method of Chiropractic*. *Asia Pacific Chiropractic Journal*. 2024.

## Appendix

### Arm Fossae Proficiency Check List.

- The patient is supine, eyes open.
- The patient's testing arm is perpendicular to their body with the hand closed loosely and the palm facing medially.
- The patient's non-testing arm should be against the lateral aspect of the patient's thigh.
- The doctor stands on the same side as the fossae being tested.
- The doctor should stand adjacent to the patient's greater trochanter facing the patient's opposite humeral head.
- The doctor must pull toward the patient's feet, not push, at the same time they touch the fossae and command hold.
- The fossae are divided into two halves, the upper half is contacted below the ASIS of the ilium on the insertion aspect of the ligament to the bone.
- The lower half testing hand contacts the fossae with the doctor's little finger landing on the point just lateral to the ligament's insertion to the pubic aspect of the ilium.
- The fossae must be touched to stimulate receptors but do not dig, gouge or push.
- All four fingers must touch the fossae with equal pressure.
- The fossae are moon shaped, so the doctor must follow the curve.
- A slight arm 'give' is sought, not a full swing.
- Note the patient's ability to respond with defined resistance. This is a relative test so note the fossae, if positive, that is unable to respond like the other three fossae areas.
- The upper fossae equate to the short leg side, the lower fossae to the long leg side, for block placements.
- The patient should not jerk their arm backward in order to resist the pull.
- If the patient cannot maintain the arm perpendicular to their body with a firm and steady resistance, then the arm/fossae test is considered positive for category 2 blocks.

