



OSTEOPATHY & PLAGIOCEPHALY

ABOUT OSTEOPATHIC MEDICINE

WHAT IS OSTEOPATHY?

Osteopathy is a patient-focused approach to health care that takes into account every aspect of the patient, including their physical, personal, and spiritual well-being. Developed more than 150 years ago by Andrew Taylor Still, MD, DO, osteopathic medicine brings a unique philosophy to traditional patient care. Understanding that the body is more than just a sum of its parts, osteopathic physicians (DOs) assist the patient's innate capacity to heal by addressing the interrelationship of the body's nerves, muscles, bones and organs. Osteopathic physicians are licensed to prescribe medicine and practice in all medical and surgical specialties and subspecialties.

WHAT IS A DO?

Doctors of Osteopathic Medicine, or DOs, are fully licensed physicians who practice in all specialties of medicine and receive special training in the musculoskeletal system, including how to practice OMT or osteopathic manipulative treatment.

WHAT IS OMT?

OMT is a set of techniques that DOs apply with their hands to the body to help diagnose and treat illnesses and injuries. It can be used to complement or even replace other medical interventions like medications or surgery. Although most often considered for musculoskeletal issues (like neck and back pain) it can also be used to help many other conditions including asthma, constipation, sinus infections, headaches, and more!

WHAT IS OCMM?

OCMM is Osteopathic Cranial Manipulative Medicine, and is a type of OMT mainly used to address issues in the head, including ear infections, sinus infections, headaches, dizziness, vision problems, and more.



TREATING PLAGIOCEPHALY THROUGH OSTEOPATHY

WHAT IS PLAGIOCEPHALY?

Flattening of the skull, usually asymmetric, seen in infants. There are multiple types but most common is positional or deformational plagiocephaly caused by pressure on the soft and malleable skulls of infants, for example spending a long time on their backs or with their head rotated to one side. This can happen while baby is still in mother's womb, around the time of birth, including during delivery, or in the first few months of life.

SHOULDN'T MY BABY SLEEP ON THEIR BACK?

Yes, per recommendation from the American Academy of Pediatrics all infants should sleep on their backs, alone, and in a crib! This all came out of the "Back to Sleep" or now Safe to Sleep, campaign. Having infants sleep on their backs helps reduce the number of SUIDS (Sudden Unexplained Infant Death Syndrome) cases. The risk of plagiocephaly is higher in infants that also have torticollis which is a tight neck muscle that limits a baby's neck motion and can lead to pressure on one side of the head more than the other.

WHAT WILL YOU SEE IN A BABY WITH PLAGIOCEPHALY?

They will have flattening of their head, most commonly in the back towards a bone called the occiput. As the back of the head flattens, there are shifts in other parts of the skull, including the bones that make up the face. If the face has changes, it can influence many other important things including vision, how teeth grow in, and if the child will be at risk for ear or sinus infections. Sometimes babies with plagiocephaly may also have associated developmental delays.

HOW DO YOU TREAT PLAGIOCEPHALY?

Plagiocephaly can be treated by observation with repositioning exercises and gentle stretching at home. Encouraging more tummy time while your baby is awake also helps. Physical therapy may also be helpful, especially if the infant also has torticollis (twist in the neck). Helmets are another potential option, but they have limitations. One of the limitations include that they can be costly. Helmets only address the back of the head (not the face!) and they only treat the head so cannot fix restrictions anywhere else in the body. This can be important if the child has torticollis and that restricted and tight neck is contributing to the plagiocephaly. Studies looking at helmets to treat plagiocephaly have not shown a conclusive benefit.

HOW DOES OMT HELP PATIENTS WITH PLAGIOCEPHALY?

Since babies' skulls are still in multiple pieces at birth and stay flexible for a long time while they are growing, OMT can be used to gently reshape the patients' heads, including the face. This can help fix any asymmetry that might affect the infants' cosmetic appearance as well as function of many important structures as mentioned above. If the patient has torticollis, OMT can also help treat this so the patient has no long term muscle tightness and so that they do not continue to only turn their head to one side so the flat spot does not return. Since OMT is performed by physicians, they are also able to assess and monitor for developmental delays or any other restrictions in the patients' bodies that might need addressing.



IS THERE ANY EVIDENCE TO SUPPORT THIS?

Dr. Viola Frymann, DO was one of the first physicians to use OMT to treat plagiocephaly. She published some of the earliest data on this population which is now being corroborated by current research. OCMM has been more formally studied for other pediatric conditions including ear infections, feeding problems (especially with breastfeeding), colic, scoliosis, cerebral palsy, and autism spectrum disorder. Most of this research consists of smaller studies and so there is a need for continued research into the benefits of OMT for all of these conditions.

In recent years, there has been more research looking at the benefits of OMT to specifically treat plagiocephaly. This includes a 2023 publication that was a retrospective (meaning looking back later) chart review and showed improvement in the skull's asymmetry with OMT. Also, published in 2024, was a retrospective study of over 400 infants in a neonatal intensive care unit in Italy, that also showed significant improvements in cranial asymmetry with just a few osteopathic manipulative treatment sessions. These results are promising, but still additional studies are needed that look at the treatment of these children in a prospective (meaning watching what happens as you treat) way.

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