

# Osteopathic International Alliance

## Shepherd of Global Osteopathy and Osteopathic Medicine

Hollis H. King, DO, PhD  
Montreal, Canada  
September 26, 2015

Shepherds, in the best sense, guide their flock



Take care to nourish the health of the flock



And defend the flock



## The OIA Flock

To me, as a outsider to the workings of the organization, the **OIA is a vital organization**, ultimately I believe to help the public and the medical-scientific world understand osteopathy/osteopathic medicine.

Circa 2006, and to a lesser degree today, when you googled osteopathy or osteopathic medicine up came hundreds of sites, most outside the USA. The presence of the OIA helps to bring some order to the public's awareness of just who we are.

In 2006 I attended the OIA meeting in Schlangenbad, Germany as a part of the USA contingent, and gave a presentation on research, just as I am now, so in a way I too feel like a shepherd.



Just a few members

# OSTEOPATHIC INTERNATIONAL ALLIANCE



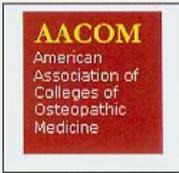
## 2006 ANNUAL CONFERENCE & GENERAL MEETING

5-7 OCTOBER 2006

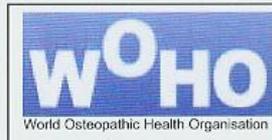
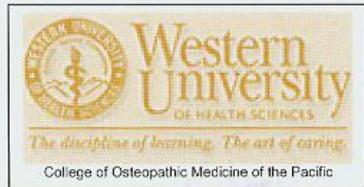
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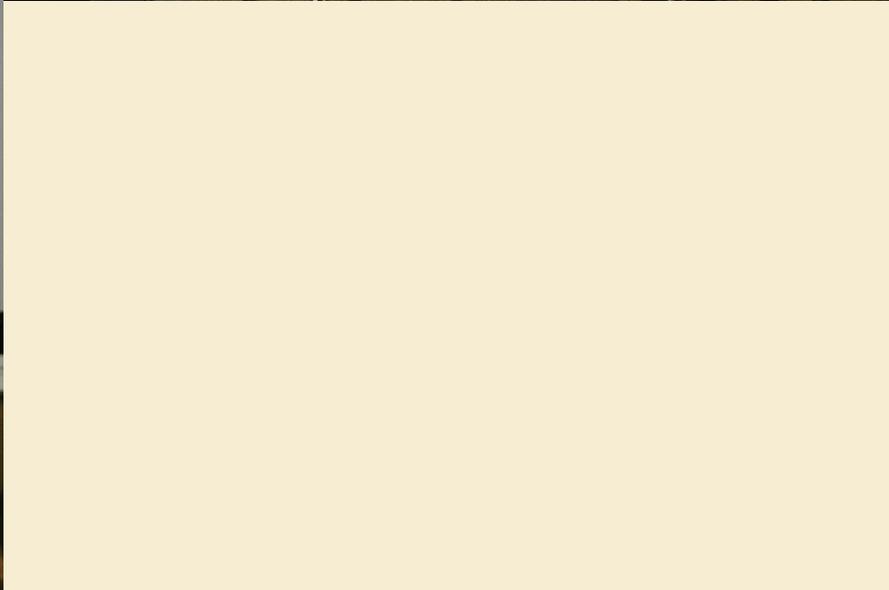
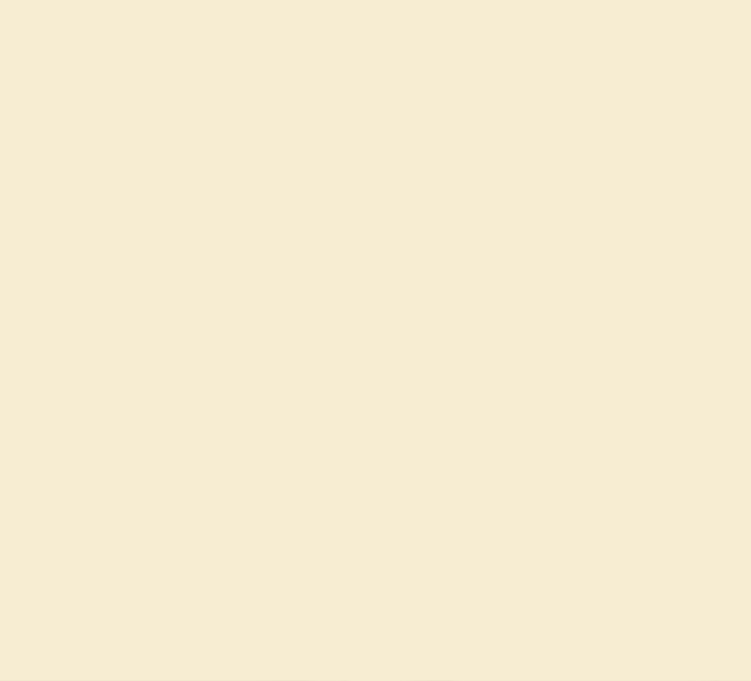
# And a few Partners



PARTNER MEMBERS OF  
THE OSTEOPATHIC  
INTERNATIONAL ALLIANCE  
[www.OIAlliance.org](http://www.OIAlliance.org)

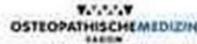


\*\*Partner members as of 20 September 2006



# Now look at the OIA

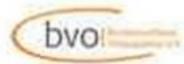
## Full Members



## Associate Members



# Partners





## **From OIA website**

### **Osteopathy and Osteopathic Medicine –**

Osteopathy/osteopathic medicine is a person-centred system of health care. Osteopathic care includes a highly developed sense of touch as a significant component of the diagnosis and treatment of patients. An advanced understanding of the relationship between structure and function is applied to optimize the self-regulating, self-healing homeostatic capabilities of the whole person. The profession of osteopathy/osteopathic medicine is practiced in many countries throughout the world.

**Osteopath** – is a person who has achieved the nationally recognized academic and professional standards within his or her country to independently practice diagnosis and provide treatment based upon the principles of osteopathic philosophy. Individual countries establish the national academic and professional standards for Osteopaths practicing within their countries.

**Osteopathic Physician** – is a person with full, unlimited medical practice rights and who has achieved the nationally recognized academic and professional standards within his or her country to practice diagnosis and provide treatment based upon the principles of osteopathic philosophy. Individual countries establish the national academic and professional standards for Osteopathic Physicians practicing within their countries.

Regarding: McGrath MC. A global view of osteopathy – mirror or echo chamber. *Intern J Osteopath Med*. 2015;18:130-140.

Dr. McGrath maintains there is a **spectral difference between USA osteopathic physicians and osteopaths** because USA osteopathic physicians hold the license to the “unlimited scope of medical practice,” and osteopaths only do OMT.

**I disagree.**

There is ample evidence, in my opinion, of the impact of “core activity” training in OMT which includes the osteopathic medical philosophy upon USA DOs, and I presume in osteopathic training everywhere.

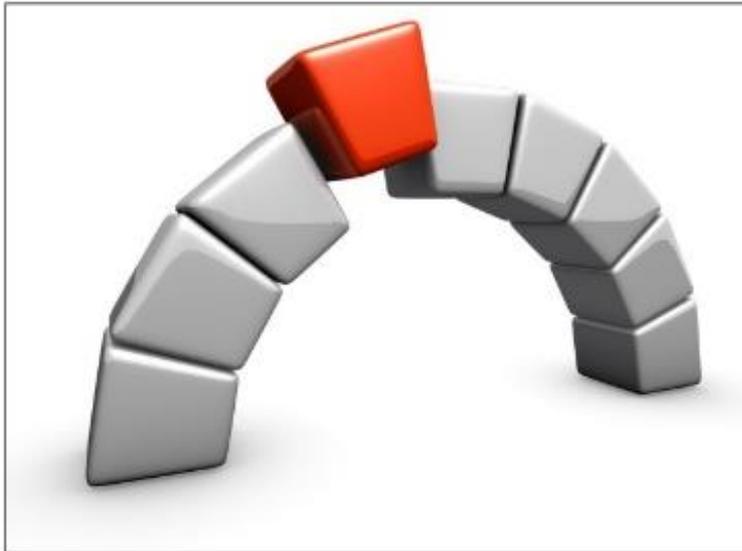
Regarding: McGrath MC. A global view of osteopathy – mirror or echo chamber. *Intern J Osteopath Med*. 2015;18:130-140.

Robert Cain, DO, FACOI is a pulmonologist in Columbus, Ohio, USA has published a book describing his and other DO specialists application of core tenets of osteopathic philosophy and OMT. Dr. Cain argues that most DOs “think osteopathically,” even if they do not do OMT, because of their training,<sup>4</sup> and will frequently refer a patient to a colleague who does OMT.

4. Cain RA. *Promoting osteopathic thought in clinical education: a patient centered, systems approach to health and illness*. Proactive Health Management, Dayton, OH. 2011 ISBN: 978-0-9853648-0-9.

**Promoting Osteopathic Thought in Clinical Education**  
*Every Patient, Every Day...*

A Patient-centered, Systems Approach to Health and Illness



Robert A. Cain, DO, FACOI

Everyone, I believe, will find this book worthy of consideration.

It is not on Amazon, but either Dr.Cain or I can send you a copy.

Just ask.

“Traditional Osteopathy,” the basis of osteopathic medicine, is alive and well in the USA.

Furthermore, I believe that as the research establishing the evidence-base for the benefit of the form of manual medicine we call “Osteopathic Manipulative Treatment,” increases, that more will be drawn to learn it or renew their skills.

My experience is that insurance pays for OMT fairly well in the USA. But I recognize the challenge to those osteopaths who work in countries which do not support OMT.

Perhaps OIA is working on this?

# **A Rising Tide Floats All Boats**

One major development of which Dr. McGrath may not be aware is the completion of a memorandum of understanding (MOU) between the AOA, the American Association of Colleges of Osteopathic Medicine (AACOM) and the Accreditation Council for Graduate Medical Education (ACGME) developing a single graduate medical education accreditation system.

# That Rising Tide

The embrace by the allopathic medical profession of Osteopathic Principles and Practice suggests to me that OPP, not just the osteopathic physicians, will now be more widely accepted in the main stream of medical training and practice. Once there is final agreement on these unified residency training standards and they are more widely known and the details are spelled out, **my opinion is that this will accrue to the benefit of all osteopaths around the world.** A.T Still's vision of changing healthcare, by adding the osteopathic perspective and approach, is alive and well in these negotiations.

# Manual Medicine Better than Osteopathic Manipulative Medicine?

Dr. McGrath advocates the development of a **generic manual medicine profession**, subsuming all professions that use their hands in healthcare.

I would say let **osteopathy and osteopathic medicine** become the **bench mark for the training in and application of manual medicine.**

Why not, we do have over a century of history of relatively successful professional development and I suggest that osteopathy has not only survived but seems to be increasingly well established in the arena of healthcare.

# An Attack on or Misunderstanding of Osteopathic Principles?

Dr. McGrath states “The human body is clearly **not** ‘self-healing’ in the face of innumerable contingencies.”

This appears to be a criticism of the tenets of osteopathy and osteopathic medicine, (1) The body is a unit; the person is a unity of body mind and spirit. (2) The body is capable of self-regulation, self-healing and health maintenance. (3) Structure and function are reciprocally interrelated. (4) Rational treatment is based upon an understanding of the basic principles of body unity, self-regulation, and the interrelationship of structure and function.

Clearly the body is self-regulating and self-healing.

Moment to moment our blood pressure is regulated as we stand up and sit down.

Who has not had a laceration or infection of some sort that healed, even without medical intervention?

If Dr. McGrath actually means what it appears he is saying, I submit that this may be a serious, self-inflicted flaw in his commentary. One wonders what he is trying to accomplish.

# Important OIA Functions

The OIA is pivotal in guiding and supporting governmental recognition of osteopathy around the world.

The establishment and maintenance of **training standards** is fostered by OIA.

There are presentations on this topic later today and tomorrow.

# Important OIA Functions

## Research

### Recommendations:

1. Expand the awareness of **COME** more broadly.
2. Initiate and support the development of practice-based research networks.

# Rendez-vous 2015

Global Conference on Pediatric Osteopathy and IPC

COME is active part of the Rendez-vous 2015

The Center for Osteopathic Medicine Collaboration (COME) has replaced the Commission for Osteopathic Research, Practice and Promotion (CORPP) as a place to come to for information on new and recent osteopathic research.

But how many access it?

# Practice-Based Research Networks (PBRN)

We have two functioning in the USA now.

The DO Touch-Net

<https://www.do-touch.net/>

Concord PBRN

<https://www.unthsc.edu/texas-college-of-osteopathic-medicine/CONCORD-PBRN>

# Rendez-vous 2015

Global Conference on Pediatric Osteopathy and IPC

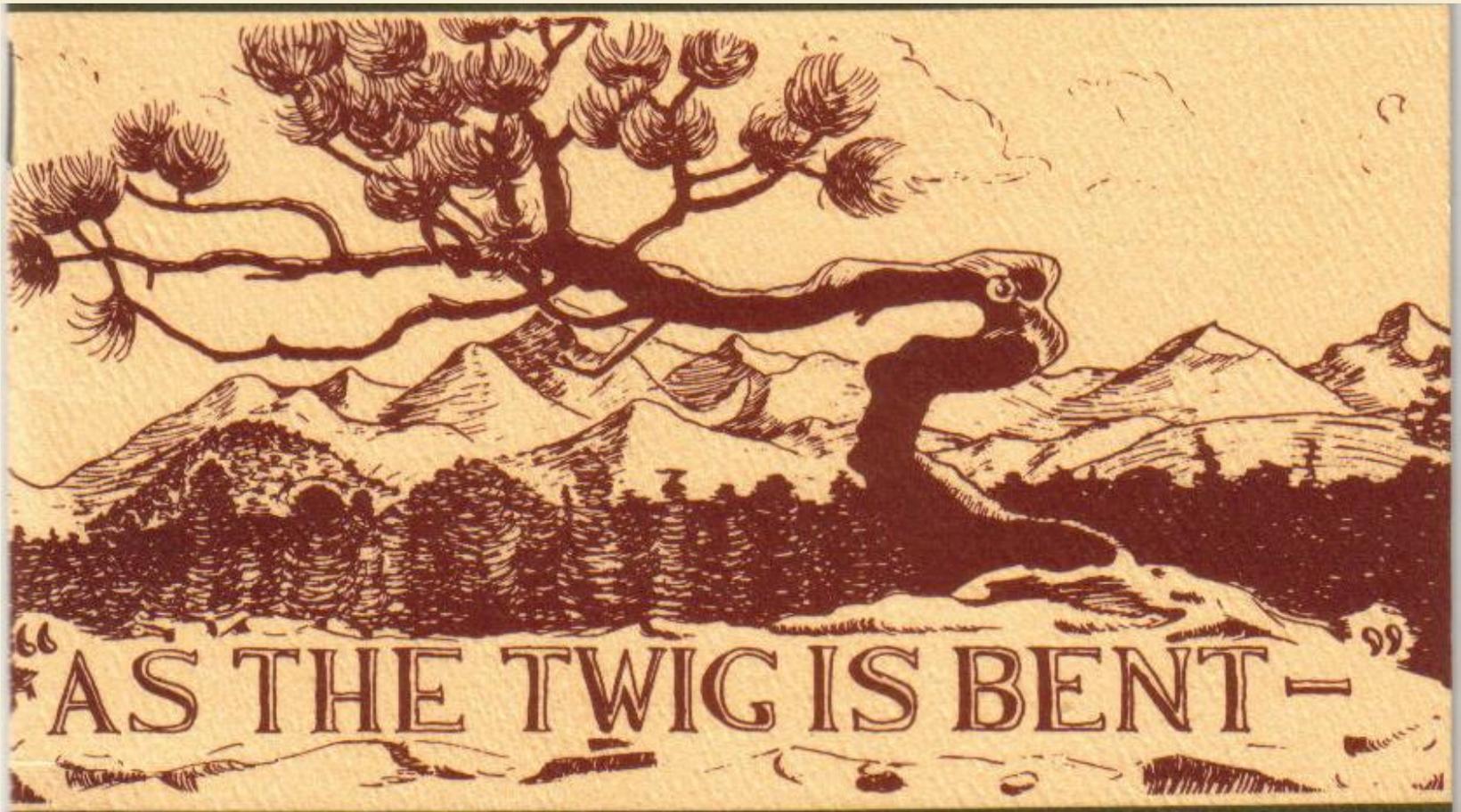
## Research on Pediatric Osteopathy An Update

Hollis H. King, DO, PhD

September 26, 2015

[hhking@ucsd.edu](mailto:hhking@ucsd.edu)

“As the twig is bent so doth the tree  
Incline” – Alexander Pope



# Portrait in ATSU-SOMA Foyer



Neonatal ICU - GI Tract Function

and

Neonatal ICU Length of Stay

Pizzolorusso G, Turi P, Barlafante G, et al. Effect of osteopathic manipulative treatment on gastrointestinal function and length of stay of preterm infants: an exploratory study. *Chiropractic and Manual Therapies*. 2011;19:15.

The study included a total of **350 consecutive admissions** who met certain inclusion/exclusion requirement.

**188** preterm infants received **routine care** and **162** preterm infants received **routine care plus OMT**.

OMT sessions lasted between **20-30 minutes**. OMT procedures were limited to only indirect and fluidic techniques and **included indirect myofascial and cranial sutural spread, balanced membranous tension and balanced ligamentous tension**

**One outcome measure** was the **incidence of gastrointestinal dysfunction** defined as being in the upper quartile of the average number of episodes of vomit, regurgitation, gastric reflux present (milky, bilious, bloody measured only on infants with oro/naso-gastric tube), frequency of stooling and enema administration per patient care encounter.

**The second outcome measure** was the **length of stay (LOS)** in NICU per patient.

The non-random assignment to treatment or control group resulted in the OMT group having a statistically significant higher rate of infants unable to be orally fed at admission. Despite that possible adverse influence, **premature infants who received the OMT had fewer instances of the gastrointestinal dysfunction occurrences (Average Daily Gut Symptoms 28 to 60 for the control group,  $p < 0.002$ ).**

**OMT group had a significantly shorter length of NICU stay (28 days to 55 days for the control group,  $P < 0.001$ ).**

**Table 2 Results for Average Daily Gut Symptoms: Crude and Adjusted Odds Ratios from Multivariate Logistic Regression**

	Average Daily Gut Symptoms*		Univariate O.R.		Adjusted O.R	
	≤ 0.44	> 0.44	O.R. (95%CI)	p >   $\chi^2$	O.R. (95%CI)	p >   $\chi^2$
N	262 (74.9)	88 (25.1)				
Gender						
Females [R.C]	129 (75.9)	41 (24.1)	1	-	1	-
Males	133 (73.9)	47 (26.1)	1.11 (0.68-1.80)	0.759	1.08 (0.65-1.79)	0.777
Gestational Age						
≤ 32	57 (69.5)	25 (30.5)	1.20 (0.65-2.21)	0.670	1.02 (0.43-2.40)	0.965
> 32, ≤ 35	112 (79.4)	29 (20.6)	0.71 (0.40-1.25)	0.293	0.72 (0.39-1.32)	0.292
> 35 [R.C]	93 (73.2)	34 (26.8)	1	-	1	-
Birth Weight (grams)						
≤ 1700	39 (67.2)	19 (32.8)	1.54 (0.80-2.96)	0.265	1.39 (0.55-3.46)	0.481
> 1700, ≤ 2200	100 (76.9)	30 (23.1)	0.95 (0.55-1.63)	0.952	1.03 (0.55-1.93)	0.927
> 2200 [R.C]	123 (75.9)	39 (24.1)	1	-	1	-
Oral feeding at admission						
No	192 (74.4)	66 (25.6)	1.09 (0.63-1.90)	0.860	1.18 (0.67-2.13)	0.583
Yes [R.C]	70 (76.1)	22 (23.9)	1	-	1	-
OMT						
No [R.C]	128 (68.1)	60 (31.9)	1	-	1	-
Yes	134 (82.7)	28 (17.3)	0.45 (0.27-0.74)	0.002	0.45 (0.26-0.74)	0.002

R.C. = Reference Category

\* No. of episodes of Vomit, Regurgitation, Gastric residual and Enema

**Table 3 Results for Length of Stay (LOS): Crude Odds Ratios (p value from Cochran Mantel Haenszel Chi Square Test of Zero Correlation) and Adjusted Odds Ratios from Multivariate Logistic Regression (p value from partial test on regression coefficient)**

	LOS (days)		Univariate O.R.		Adjusted O.R.	
	< 28	≥ 28	O.R. (95%CI)	p > $\chi^2$	O.R. (95%CI)	p > $\chi^2$
N	267 (76.3)	83 (23.7)				
Gender						
Females [R.C]	128 (75.3)	42 (24.7)	1	-	1	-
Males	139 (77.2)	41 (22.8)	0.90 (0.55-1.47)	0.765	1.40 (0.63-3.10)	0.412
Gestational Age						
≤ 32	21 (25.6)	61 (74.4)	38.10 (16.40-88.20)	< 0.001	10.90 (3.53-33.72)	< 0.001
> 32, ≤ 35	128 (90.8)	13 (9.2)	1.33 (0.55-3.22)	0.680	0.76 (0.27-2.15)	0.609
> 35 [R.C]	118 (92.9)	9 (7.1)	1	-		
Birth Weight (grams)						
≤ 1700	9 (15.5)	49 (84.5)	120.60 (42.70-340.60)	< 0.001	43.23 (11.63-160.66)	< 0.001
> 1700, ≤ 2200	103 (79.2)	27 (20.8)	5.80 (2.40-13.80)	< 0.001	3.01 (1.05-8.68)	0.041
> 2200 [R.C]	155 (95.7)	7 (4.3)	1	-	1	-
Oral feeding at admission						
No	186 (72.1)	72 (27.9)	2.85 (1.44-5.66)	0.003	3.11 (1.05-9.25)	0.041
Yes [R.C]	81 (88.0)	11 (12.0)	1	-	1	-
OMT						
No [R.C]	133 (70.7)	55 (29.3)	1	-	1	-
Yes	134 (82.7)	28 (17.3)	0.51 (0.30-0.85)	0.012	0.22 (0.09-0.51)	< 0.001

R.C. = Reference Category

Cerritelli F, Pizzolorusso G, Ciardelli F, La Mola E, Cozzolino V, Renzeti C, D’Incecco C, Fusilli P, Sabatino G, Barlafante G. Effect of osteopathic manipulative treatment on length of stay in a population of preterm infants: **a randomized controlled trial**. *BMC Pediatrics*. 2013;13:65.

Initially 110 patients were randomized, 55 to experimental group (standard care plus osteopathic evaluation and intervention) and 55 to control group (standard care plus osteopathic evaluation only).

The osteopathic intervention took place twice a week and consisted of 20 minutes of myofascial release, balanced ligamentous/membranous tension, **cranial and indirect fluidic and v-spread**.

The study was single-blind in that the osteopaths knew and recorded what they provided in the intervention. For the **control group**, the osteopaths did approximately **10 minutes of evaluation and then just stood in front of the incubators for the remainder of the 20 minutes**.

Cerritelli et al 2013

The mean LOS for the experimental group was  $26.1 \pm 16.4$  days and control group  $31.3 \pm 20.2$  days for a difference of 5.9 days ( $p < 0.03$ ).

**Table 3 Results of ordinary least square regression for cost estimates**

	Costs (2012€)		
	Estimate	95% C.I.	p> $\chi^2$
Male	576.14	-173.65 , 1325.93	0.13
Gestational Age	-120.76	-371.79 , 130.27	0.34
Birth Weight (gr)	0.49	-0.43 , 1.43	0.28
LOS	78.96	38.17 , 119.75	<0.001
OMT	-2,724.91	-3,491.73 , -1,958.09	<0.001

The weight gain was not significant ( $p < 0.06$ ).

**Table 2 Results of multivariate linear regression**

	LOS (days)			Av. daily weight gain (gr)		
	$\beta$	95% C.I.	Pr(> t )	$\beta$	95% C.I.	Pr(> t )
Male	-1.899	-3.930 , 0.127	0.07	0.708	-3.067 , 4.483	0.71
Gestational Age	-3.373	-3.916 , 2.830	<0.001	-0.338	-1.344 , 0.668	0.51
Birth Weight (gr)	-0.014	-0.016 , -0.009	<0.001	-0.018	-0.022 , -0.014	<0.001
Milk Volume at Study Enrollment (mL)	0.002	-0.004 , 0.009	0.44	0.059	0.045 , 0.072	<0.001
OMT	-5.906	-7.944 , -3.869	<0.001	3.707	-0.065 , 7.479	0.06

Pizzolorusso G, Cerritelli F, Accorsi A, Lucci C, Tubaldi L, Lancellotti J, Barlafante, Renzetti C, D'Incecco C, Perri FP. The effect of optimally timed osteopathic manipulative treatment on length of hospital stay in moderate and late preterm infants: results from a RCT. *Evid Based Complement Alternat Med*. 2014;22(4):625-631.

N = 110    Study Group = 55    Control Group = 55

OMT for 20 minutes included Indirect Myofascial Release, Balanced Membrane Tension, Balanced Ligamentous Tension. Control Group received Standard Care plus two osteopathic exams a week and the osteopath then stood by incubator for 20 minutes to blind the ancillary staff.

**Results: LOS: Study Group 15.6 ± 7.4    Control Group 17.1 ± 6.3    (*P* < 0.05)**

No difference in characteristic between the groups

Pizzolorusso et al 2014

The earlier the OMT begun the less the LOS

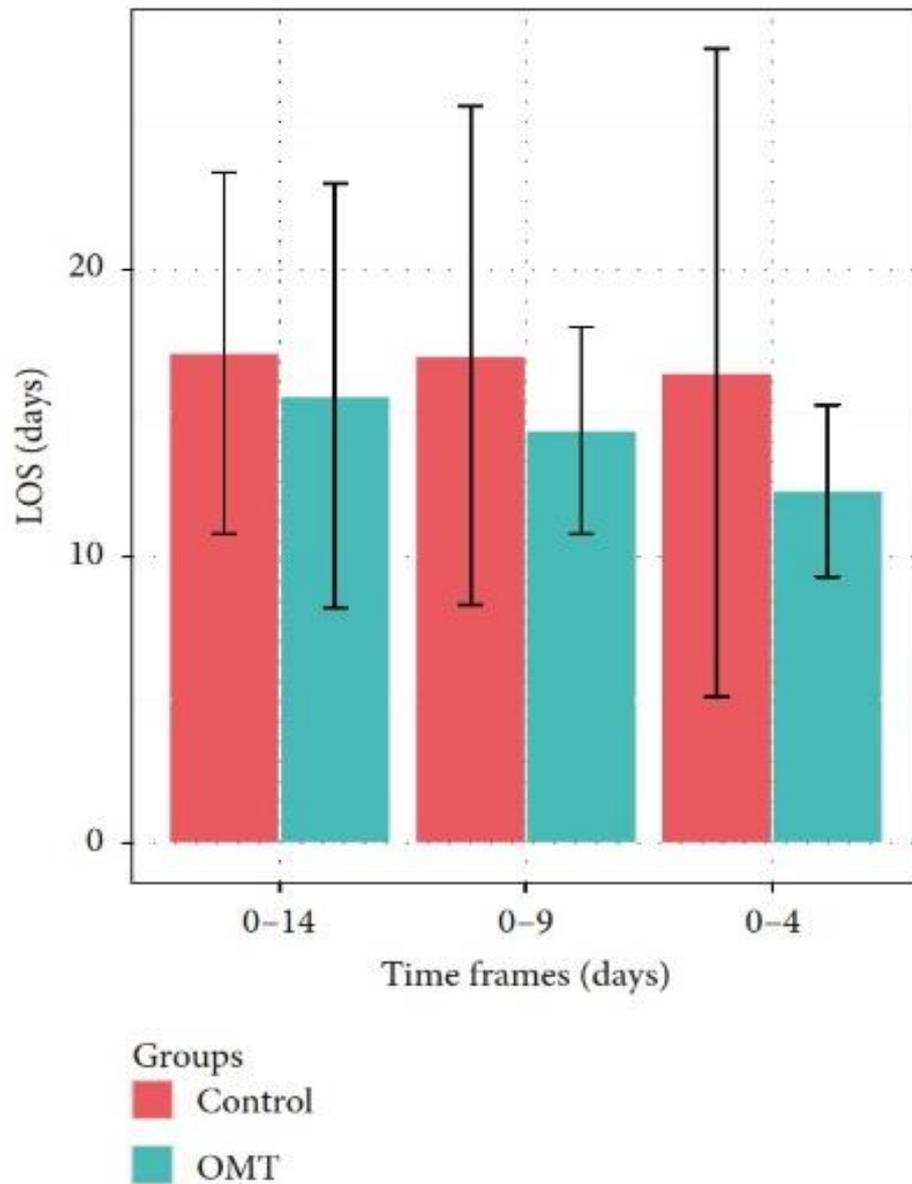


FIGURE 2: Mean LOS (days  $\pm$  SD) differences between study and control groups according to OMT time frames.

Cerritelli F, Pizzolorusso G, Renzetti C, Cozzolino V, D'Orazlo M, Lupacchini M, Marinelli B, Accorsi A, Lucci C, Lancellotti J, Ballobio S, Castelli C, Molteni D, Besana R, Tubaldi L, Perri FP, Fusilli P, D'Incecco C, Barlafante G. A multicenter, randomized controlled trial of osteopathic manipulative treatment on preterms. *Plos One*. 2015;10(5):e0127370.

### 3 different NICUs in central Italy

N = 695    Study Group N = 352    Control Group N = 342

LOS: Study Group  $13.8 \pm 8.1$     Control Group  $17.5 \pm 14.4$  ( $P < 0.001$ )

Weight gain analysis showed no difference between the groups

Cost saving determined to be 1,586 € per pt. ( $P < 0.001$ )

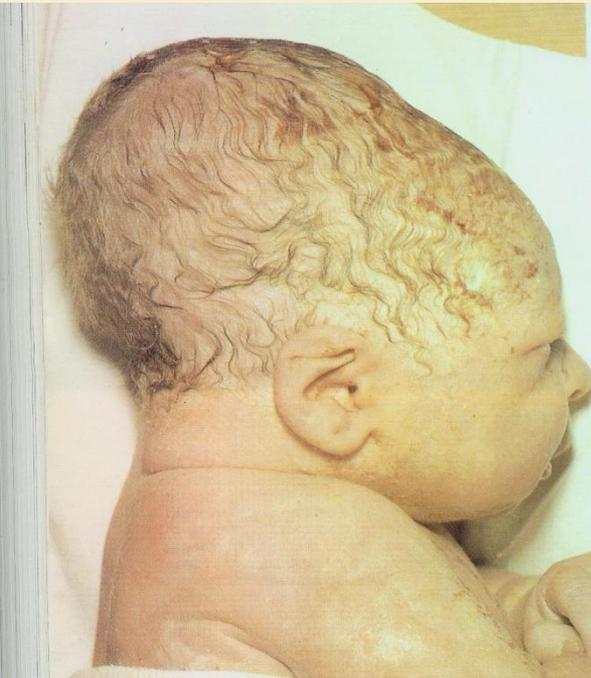
A systematic review and meta-analysis based on these and other randomized controlled trials has been submitted for publication and shows benefit for OMT

# PLAGIOCEPHALY

# Plagiocephaly

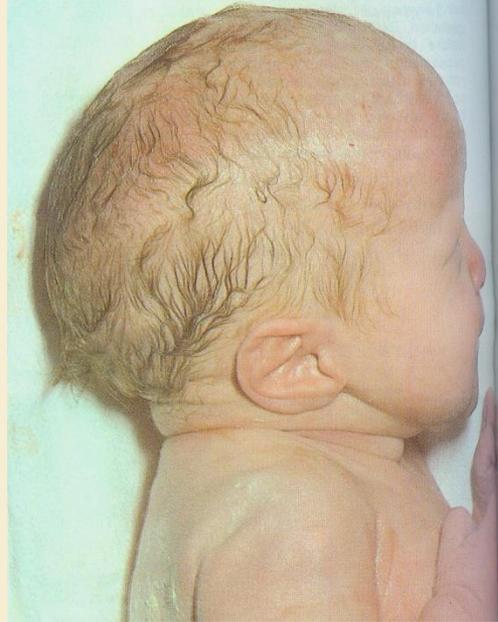


# Birth Trauma - Molding

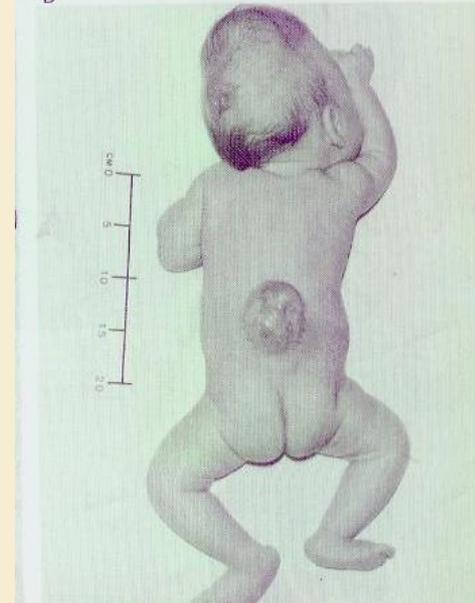


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104



D



From the Dept of Neonatology and the  
Dysmorphology Clinic UCSD Medical Center

Stellwagen L et al. Torticollis, facial  
asymmetry and plagiocephaly in normal  
newborns. *Arch Dis Child* 2008;93:827-  
831.

# Stellwagen L et al. 2008

Figure 1 Representative infant photographs: normal (A,B), mild facial asymmetry (C), mild vertex asymmetry (D), moderate facial asymmetry (E) and moderate vertex asymmetry (F).



Overall, 92% of babies were in the vertex position in utero, 73% were delivered vaginally, and 10% experienced birth trauma. Nearly all babies were described as active, although 36% were described as "stuck" or in the same position during the third trimester. **Seventy-three percent of newborns had at least one asymmetry (10% had more than one).** Torticollis measuring more than 15 degrees difference in mobility between right and left sides was present in 16% of infants and was most common among babies described as stuck for longer than 6 weeks. **Forty-two percent of infants had facial asymmetry, 62% had asymmetry of the head, and 13% had mandible asymmetry.** Facial asymmetry was associated with second stage of labor longer than 60 minutes, forceps delivery, birth trauma, and larger birth size.

Lessard S, Gagnon I, Trottier N. Exploring the impact of osteopathic treatment on cranial asymmetries associated with nonsynostotic plagiocephaly in infants. *Complementary Therapies in Clinical Practice*. 2011;17:193-198.

Prevalence **nonsynostotic occipital plagiocephaly (NSOP)** skull deformity may occur in nearly 20% of healthy newborns.

Since the American Academy of Pediatrics, in an effort to reduce the incidence of Sudden Infant Death Syndrome, initiated the “**Back to sleep**” campaign in which parents place infants in a supine position for sleep, incidence of **NSOP has increased**. Conventional interventions for NSOP include counter-positioning, physical therapy, and cranial orthosis (helmet therapy).

**Twelve infants** referred to the Children's Hospital Trauma Program were the subjects in this pilot study.

**Inclusion** criteria were, 1) to be younger than 6.5 months at first evaluation, 2) to the diagnosis or the signs of NSOP, and 3) and to have been at term corrected age if born prematurely.

**Exclusion** criteria were 1) if there was a documented craniosynostosis, 2) an ongoing cranial orthosis treatment, or 3) any medical condition judged inappropriate by a physician. The average age of the sample at first OMTh was 4.1 months, 75% were male, 92% had right side head flattening (consistent with current prevalence data) and 83% were vaginal deliveries

## **Methods**

Each patient received **four osteopathic treatments** of 60 minutes duration **once every two weeks**.

The 3 primary outcome measures used in the assessment of NSOP were the differences between the left side and right side measurements of 1) **Skull Base Asymmetry (SBA)** which is a line from tragus of the ear to the subnasal landmark under the nasal septum, 2) **Cranial Vault Asymmetry (CVA)** which is the distance between the frontozygomatic suture and eurion, the point most lateral on the head in the parietal region, and 3) **Trans-cranial vault asymmetry (TCVA)** which is the diameter frontozygomatic suture around the head to the occipital prominence or flatness.

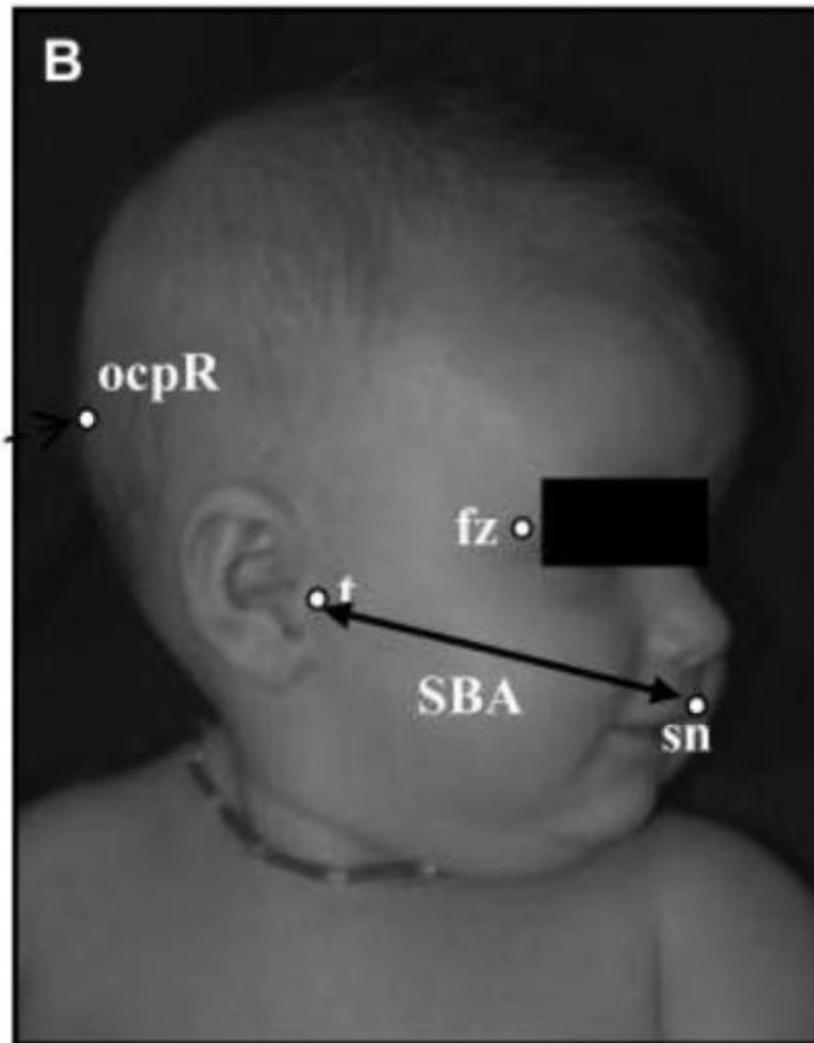
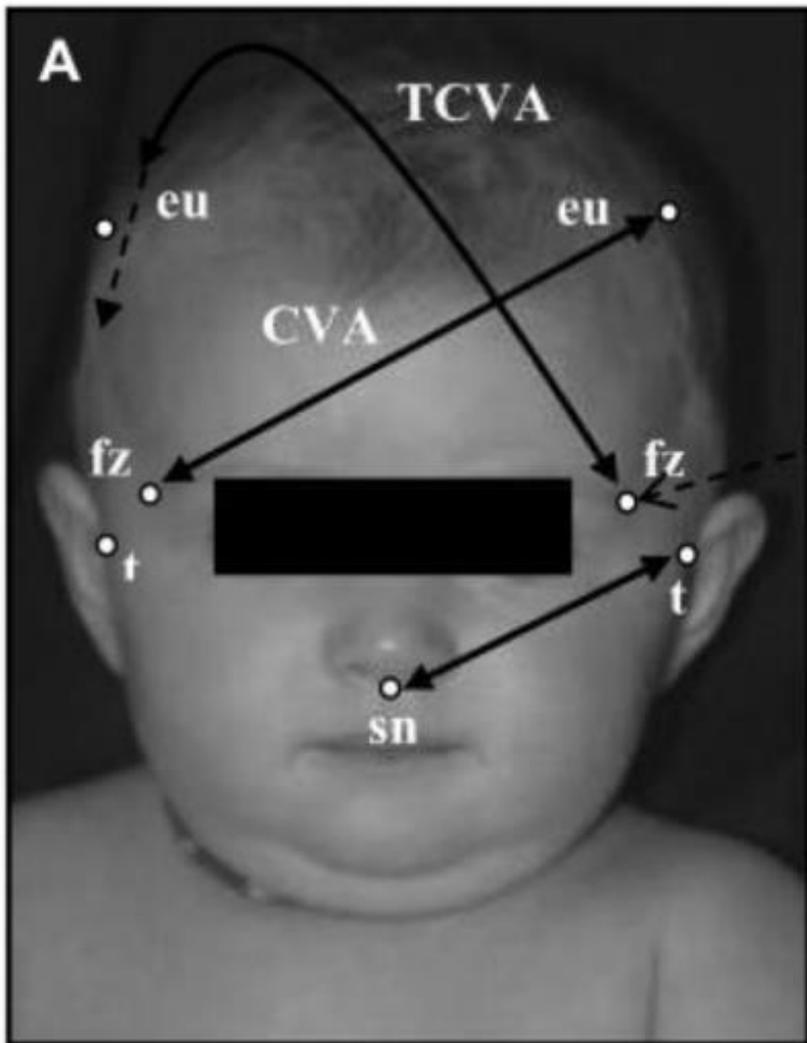


Fig. 2.

**Skull Base Asymmetry (SBA)**

**Cranial Vault Asymmetry (CVA)**

**Trans-cranial vault asymmetry (TCVA)**

Lessard et al. 2011

The results for all 3 of the primary outcomes measures showed **statistical significance**

**CVA** ( $F = 5.20$ ;  $p = 0.02$ ),

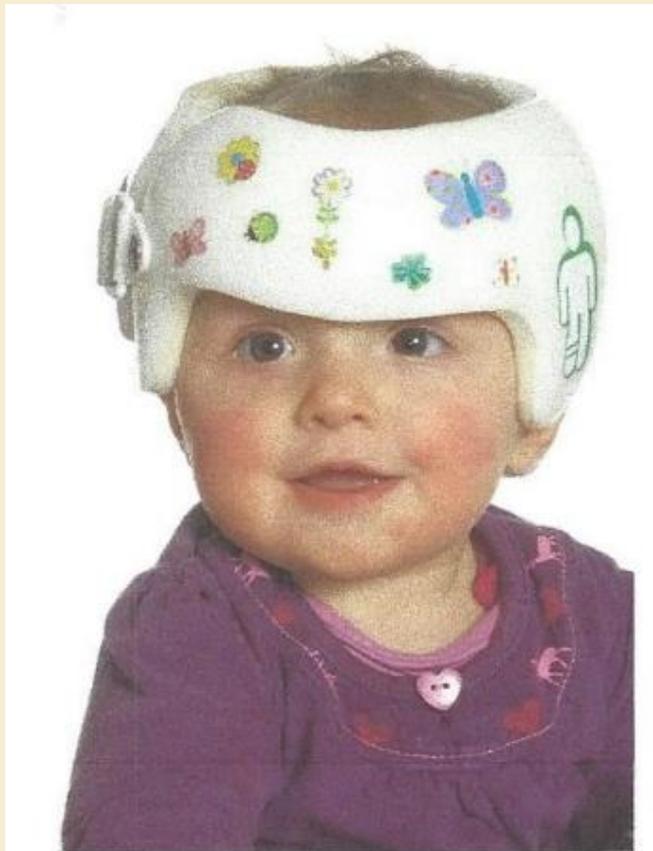
**SBA** ( $F = 5.72$ ;  $p = 0.01$ ),

**TCVA** ( $F = 7.97$ ;  $p = 0.003$ )

Taken together this showed a significant reduction in skull asymmetry from pre-test to post-intervention, a period of 8 weeks on the average.

The authors note the obvious that, due to the small size and no control group, it cannot absolutely be inferred that the osteopathic intervention was the cause of improved cranial bone symmetry.

In Europe the PT and osteopathic treatment of plagiocephaly has become so popular in the last 10 years that the helmet people express concern



*Fig. 2. Child with a helmet.*

Kluba S, Lypke J, Kraut W, Krimmel M, Haas-Lude K, Reinert S. Preclinical pathways to treatment in infants with positional cranial deformity. *Int J Oral Maxillofac Surg.* 2014;43:1171-76.

The “preclinical” (quotes due to the authors apparent perspective that everything prior to being seen in their clinic was preclinical even though visits to pediatricians, physical therapist, and osteopaths had already occurred).

In fact, if the child had been seen for physiotherapy/osteopathy, they appeared significantly later ( $P = 0.023$ ). This implied criticism of physiotherapy and osteopathy is later discussed in the context of the need to **rule out craniosynostosis** by ultrasound examination, which is a service typically done only in oral maxillofacial surgery clinics.



*Fig. 1.* Infant with positional plagiocephaly before and at the end of helmet therapy.

# A Recent Case of Mine



02/11/2015



07/01/2015



View: 60026044

CENL 86007139188  
 DOB: 7/1/2014 M  
 END DATE: 7/20/15  
 PRICE: KING HOLLISH  
 Blue & Gold Helm Out of Network




Cranial Technologies, Inc.  
 8010 Frost Street, Suite 500, San Diego, CA 92123  
 (858) 571-1217 | [www.cranialtech.com](http://www.cranialtech.com)



Patient Name: [REDACTED]  
Physician: [REDACTED]  
Treatment Entry: 02/19/15  
DOB: 07/01/14



02/11/2015

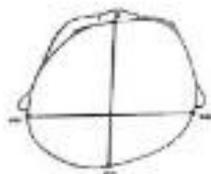


07/01/2015

# Anthropometric Measurements: [REDACTED]

**Entry Image**  
02/11/15

**Exit Image**  
07/01/15



Proportionality Measurements	
Width (EuL-EuR)	125 mm
Length (g-Op)	148 mm
Cephalic Index	84.5
Standard Deviation	+1.0

Proportionality Measurements	
Width (EuL-EuR)	129 mm
Length (g-Op)	155 mm
Cephalic Index	83.2
Standard Deviation	+0.8



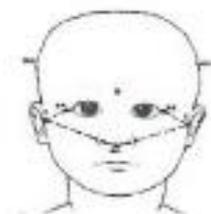
**Circumference** 441 mm

**Circumference** 460 mm



Asymmetry Measurements	
FzL-OcpR	141 mm
FzR-OcpL	152 mm
Sn-TL	94 mm
Sn-TR	91 mm
ExL-TL	61 mm
ExR-TR	62 mm
Cranial Vault Asym	11.0 mm
Cranial Vault Asymmetry Index	7.8
Cranial Base Asym	3.0 mm
Midface Asym	1.0 mm

Asymmetry Measurements	
FzL-OcpR	147 mm
FzR-OcpL	155 mm
Sn-TL	95 mm
Sn-TR	95 mm
ExL-TL	60 mm
ExR-TR	63 mm
Cranial Vault Asym	8.0 mm
Cranial Vault Asymmetry Index	5.4
Cranial Base Asym	0.0 mm
Midface Asym	3.0 mm



DOB: 7/12/2014  
ENC DATE: 7/20/15  
PCPN: KING, HOLLIS H  
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[Barcode]

## Proportionality Measurements



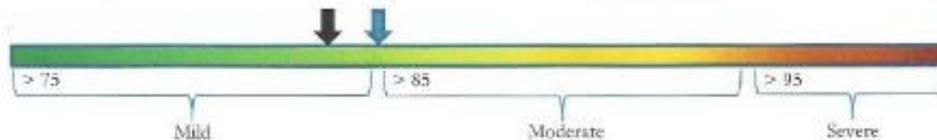
The **Cephalic Index (CI)** is the ratio of the width to length of the head.  
 It is calculated by dividing cranial width by length, and multiplying by 100  $\{(width/length) * 100\}$ .  
 Normal will usually range from 75 to 80, but will vary slightly with age and ethnicity.  
 The **Standard Deviation (SD)** is a measure of how far this ratio is from normal; anything over 2 SD is considered at least a moderate deformation.

■ **Entry Cephalic Index: 84.5**

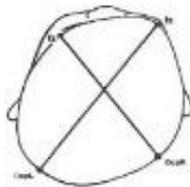
**Entry Standard Deviation: +1.0**

■ **Exit Cephalic Index: 83.2**

**Exit Standard Deviation: +0.8**



## Asymmetry Measurements

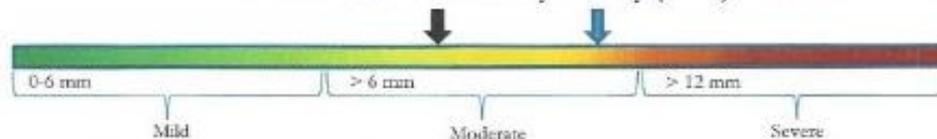


**Cranial Vault Asymmetry (CVA)** is the difference between the longest and shortest diagonal measurements from the forehead to the opposite posterior cranium.

CVA > 6 mm is often classified as a moderate deformity.  
 CVA > 12 mm is often classified as a severe deformity.

■ **Entry Cranial Vault Asymmetry (CVA): 11.0 mm**

■ **Exit Cranial Vault Asymmetry (CVA): 8.0 mm**

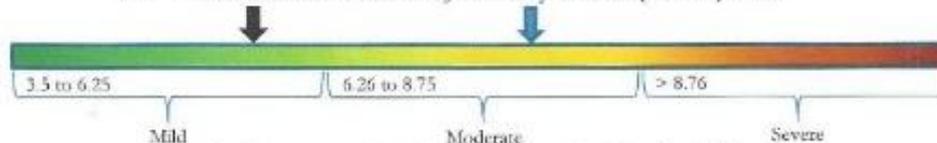


The **Cranial Vault Asymmetry Index (CVAI)** is the CVA divided by the shortest of the two diagonal measurements. It is useful because, as an index, it remains proportional as the head grows and is independent of age.

CVAI > 6.25 is often classified as a moderate deformity.  
 CVAI > 8.75 is often classified as a severe deformity.

■ **Entry Cranial Vault Asymmetry Index (CVAI): 7.8**

■ **Exit Cranial Vault Asymmetry Index (CVAI): 5.4**



*Notes: Linear measurements do not always convey the entire complexity of a three dimensional shape.*



In the AOA House of Delegates they have the A. T. Memorial Lecture. It is an honor to be called upon to deliver this presentation, sort of message on the state of the profession.

Twice I heard calls that all newborns and infants should be evaluated and treated by an osteopath/osteopathic physician like **Viola M. Frymann, DO.**

Once when Mary Burnett, DO of Texas and again when Howard Levine, DO of New Jersey made their presentations to the House.

New York Daily  
News  
March 2, 2010

Newborns  
regularly  
“checked” at  
St. Barnabus  
Hospital, New  
York City



Dr. Hugh Ellinger, director of St. Barnabus' osteopathic program, uses his fingers to feel for circulatory or nervous system issues in babies.

## THEIR HELPING HANDS

St. Barnabus' caring staff is using special treatment

BY SONORA WOLFER  
PHOTOS BY JEANNE MOONAN

BEFORE BABIES at St. Barnabus Hospital bounce home, they receive a rare hands-on treatment to search for signs of strain from birth and the physical causes of colic, poor feeding and other newborn problems.

A residency training program at St. Barnabus teaches osteopathic physicians how to gently probe the tiny muscles, ligaments, tendons and connective tissue of newborns for tightness and alignment problems.

"These babies don't kick the, but don't feel good because of colic or constipation, which may affect their feeding and growth," said Dr. Hugh Ellinger, the program's director.

He said common newborn ailments

can be caused by nervous and circulatory system problems. Using osteopathic manipulation, the physicians very gently rotate tightness and allow the infant's body to align correctly.

Each newborn receives the treatment after the tremendous pressure of birth. Some infants receive multiple treatments.

Ellinger, who has earned the nickname "magic fingers" at the hospital, said osteopathic manipulative medicine helps a baby heal itself and prevents future problems.

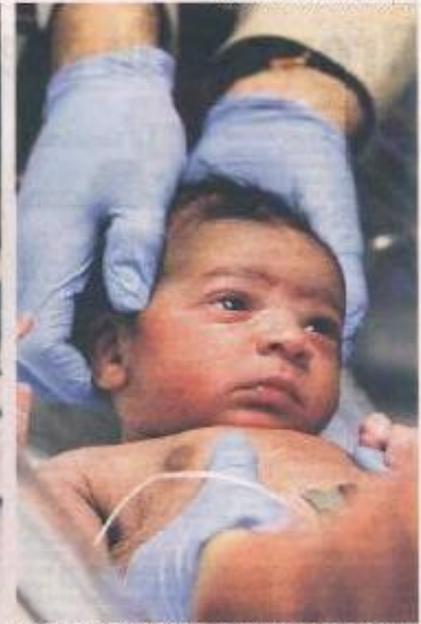
Though the procedure is not a massage, it can be relaxing for the babies, he said.

"Sometimes a baby will fall asleep while you are treating them."



Easy to add an osteopathic exam to routine well baby check, even in the hospital.

I don't know if any other hospital allows osteopathic evals and brief OMT



Below, Dr. Hannah Baker (L), Dr. Laura Woodrow and Dr. Marty Terrota examine newborns at St. Barnabas. Left, Woodrow performs osteopathic therapy on a little raffe. Top, this doctor examines a baby's head and neck.

