



PEDIA METRIX

SoftSpot™

**FDA-cleared Mobile App for Cranial
Measurements**



Using AI & Computer Vision



Problem

Pediatricians do **NOT** have any tool to measure head **shape** and only perform **visual assessment!**

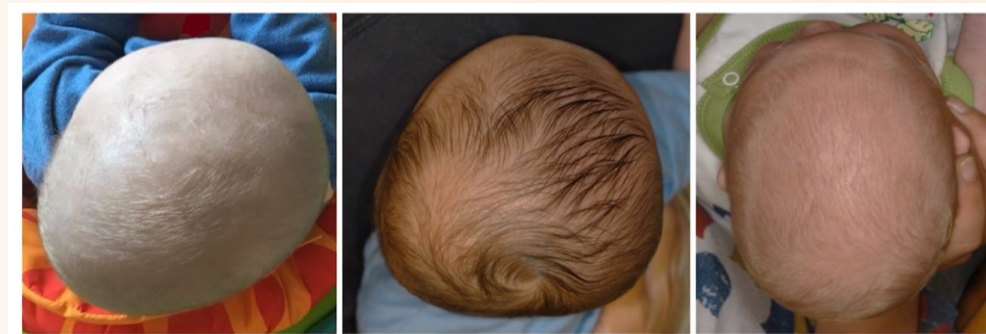
They **refer** parents to **specialists.**

Late detection results in **intensive** & **expensive** treatments



SoftSpot™ : Mobile app for infants' cranial evaluation at the point-of-care

DPB (up to 30% of newborns)

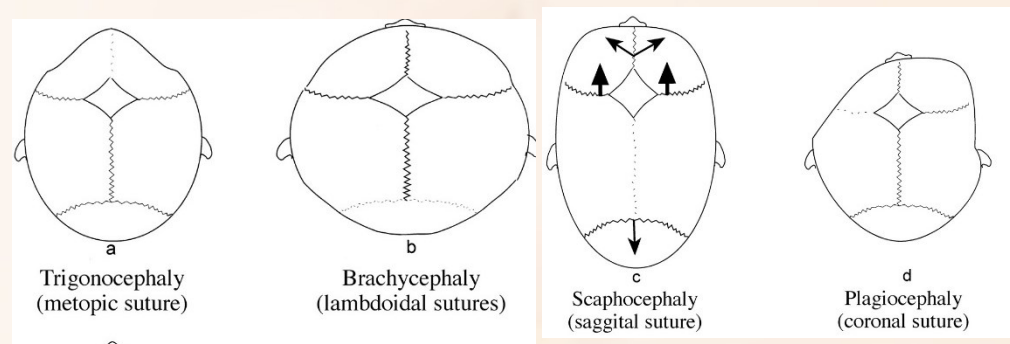


Plagiocephaly

Brachycephaly

Scaphocephaly

Craniosynostosis (1 in 2000)



a
Trigonicephaly
(metopic suture)

b
Brachycephaly
(lambdoidal sutures)

c
Scaphocephaly
(sagittal suture)

d
Plagiocephaly
(coronal suture)

Head circumference (all newborns)



Our Story



PediaMetric was founded in 2018 after my then 2-month-old son, Ryan, was diagnosed with plagiocephaly, also known as Flat Head Syndrome (FHS). The anxiety of going through helmet therapy and the long wait-time to see specialists were primary motivations for me to start PediaMetric so other parents do not go through same experience.

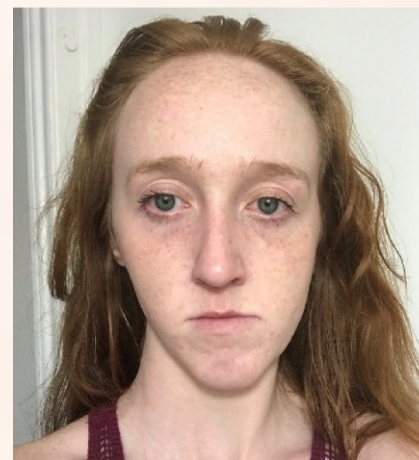
DPB



Up to **30%** of infants develop DPB [1].

 **\$1B**

in annual spending on management of DPB in US, yet 620,000 infants remain untreated [2].



[1] Ritter A, "Positional Plagiocephaly: Prevention is Key", AAP Grand Rounds Aug 2014, vol 32, Issue 2
 [2] Fenton et al, "A Pediatric Epidemic,..." J of Contemporary Pediatrics, Feb 2019

Early detection & monitoring = less cost & better outcome

Early Conservative Therapy

- No special tools
- Highly effective (~77%)
- **But works only Before 4-6 Months**



Helmet Therapy

- Expensive (~\$3000)
- Prescribed > 4-6 month
- Cumbersome (must be worn 23 hrs/d for up to 6 month)



Why conservative therapy hasn't worked?



Measurement



- **No tool available to pediatricians**
- Well visits are 2 months apart
- Long wait-time to see specialists

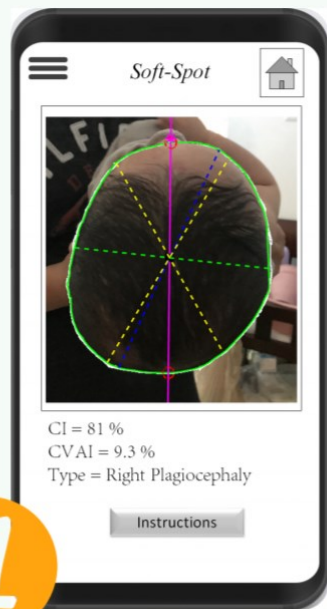


Treatment



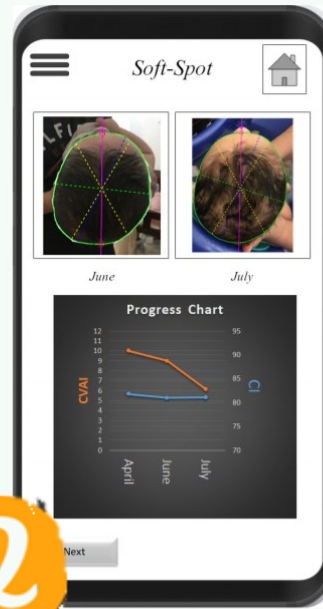
- Lack of awareness
- Well visits are short (<15 min)
- Lack of training

SoftSpot™



1

 **Detect**



2

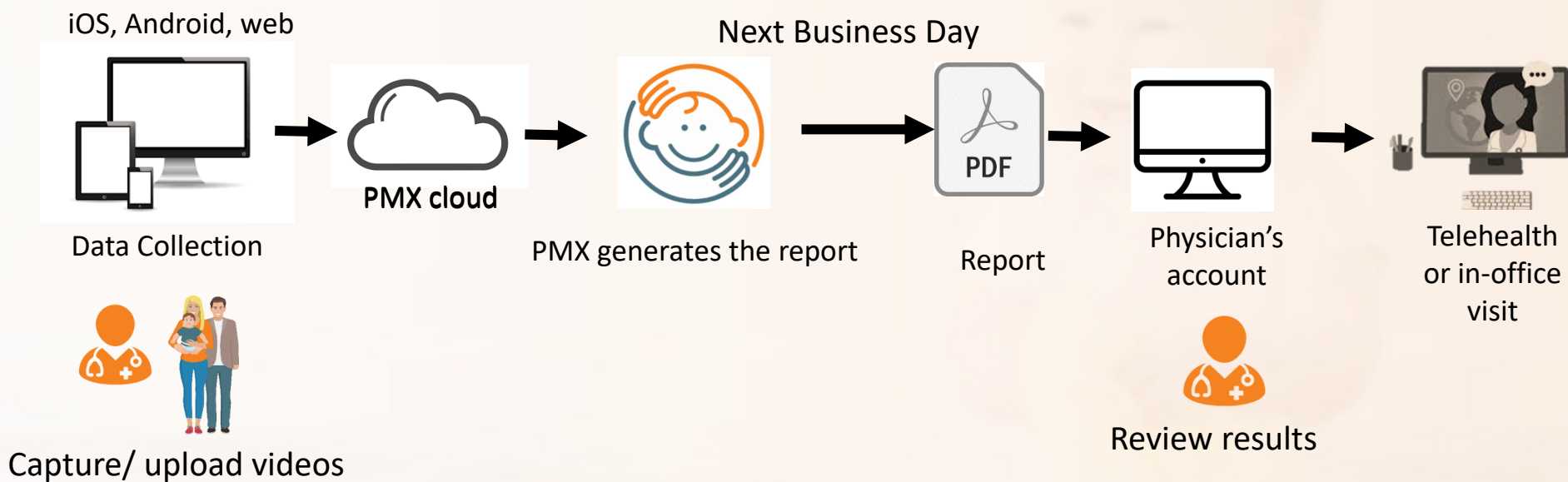
 **Monitor**



Early Intervention



Workflow



Demo: SoftSpot™ App





Report Date

02/01/2022

Baby Name:



Parent

Age

Physician



C: 87.5, CVAI: -2.1



C: 87.6, CVAI: -2.2



C: 88.4, CVAI: -0.5



C: 88.3, CVAI: -1.7



C: 89.5, CVAI: -0.7



Report Date

Baby Name:

Parent

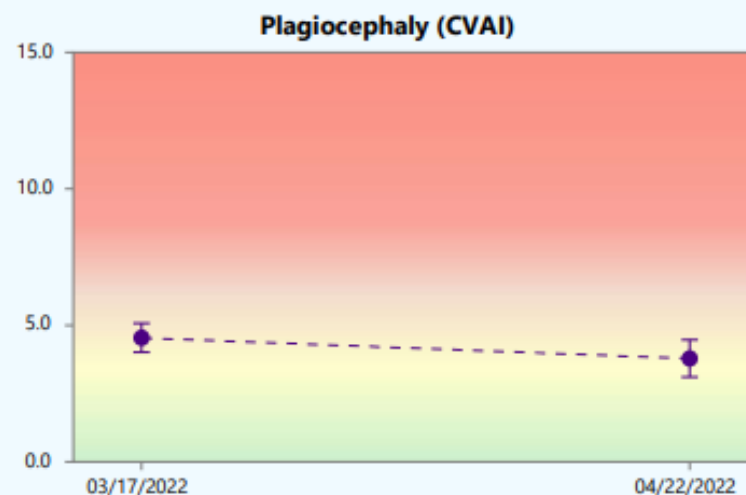
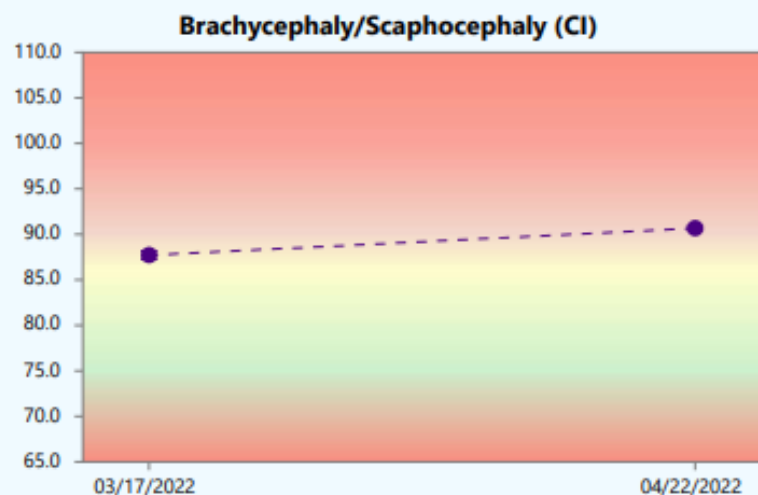
Age

Physician

	Cranial Index (CI)	Cranial Vault Asymmetry Index (CVAI)
03/17/2022	87.6 ± 0.5	-4.5 ± 0.5 Negative CVAI means the left diagonal was shorter (left flattening)
04/22/2022	90.5 ± 0.3	-3.8 ± 0.7 Negative CVAI means the left diagonal was shorter (left flattening)

Note:

We recommend that you discuss the results with parents through an in-person or tele-health visit.



How to interpret

Reference Table		
	CI	CVAI
Normal	75-86	<3.4
Brachycephaly I	86-90	N/A
Brachycephaly II	90-100	N/A
Brachycephaly III	>100	N/A
Scaphocephaly	<75	N/A
Plagiocephaly I	N/A	3.5-6.3
Plagiocephaly II	N/A	6.4-8.7
Plagiocephaly III	N/A	>8.7

I: Mild, II: Moderate, III: Severe

Date	CI	CVAI
04/18/2020	86.1 ±1.1	+7.7±0.7 Right flatness



Taking action

- **0 to 4 month:**

- ✓ Repositioning (history of **at least 2 months**)
- ✓ Tummy time/repositioning instructions (www.choa.org/tummytimetools)

- **4+ months**

Plagiocephaly	Brachycephaly	Scaphocephaly
CVAI < 3.5: No treatment	CI < 85: No treatment	Craniofacial referral
CVAI 3.5 – 6.25: repositioning	CI 85-90: repositioning	
CVAI > 6.25: Cranial orthotic evolution	CI > 90: Cranial orthotic evaluation	

Reference: https://pediatricapta.org/special-interest-groups/HB/ORTH_961942_PlagiocephalyScale_BWInfo.pdf

Competition

SoftSpot™ Comparison with Competition			
Feature	SoftSpot™	Craniometer	3D Imaging
Easy to use by novice users	✓	X	X
Accessible to pediatricians	✓	X	X
User-independent	✓	X	✓
Affordable for point-of-care use	✓	✓	X
Tele-measurement and monitoring	✓	X	X



Craniometer



3D scanner

Reimbursement



		Sick Visit		Sick Visit		
	1 Month	2 Month	3 Month	4 Month	5 Month	6 Month
Well Visit	X	X		X		X
Sick Visit			X		X	



ICD-10-CM Q67.3 (Plagiocephaly) + 99213 E/M code (Sick visit) + Modifier 25 During Every Well Visit



- Two sick-visits
- Four modifier-25 (at well visits)
- Assuming \$60 each

=> +\$360 projected extra revenue per patient.