



Tummy Time & More!

**Preventing and treating
flat heads in babies**

Physiotherapy Department, Children's Hospital, Winnipeg Health Sciences Centre

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Notes for the Presenter

- Each presenter package should include:
 - ❖ Pathways Awareness DVD
 - ❖ Children's Hospital Physiotherapy Tummy Time Sheet
- If parents have any questions that you cannot answer, send the questions to physiotherapy at Children's Hospital and then provide the information back to your group
 - ❖ Email: mpaterson@hsc.mb.ca or mthiessen@hsc.mb.ca
 - ❖ Phone: 1-204-787-2641

Tummy Time



Tummy Time

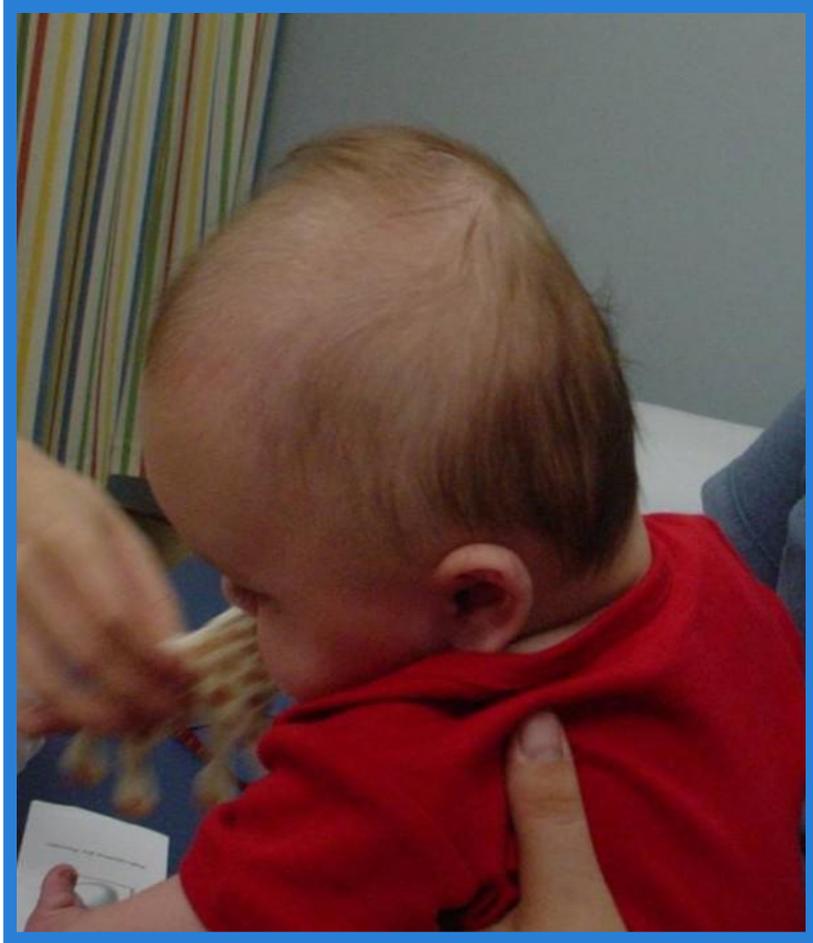
To begin, ask for a show of hands, and ask these questions:

- ❖ How many of you have heard of Tummy Time?
- ❖ How many of you have tried Tummy Time with your babies?
- ❖ How many of you find that your baby doesn't like tummy time? (expect a lot to respond to this)
- ❖ How many of YOU (the ones whose babies fuss) have been tempted to give up on Tummy Time?

Who can tell us why is Tummy Time important?

- ❖ **2 possible answers** - to prevent flat heads and to encourage normal development.

Flat Heads



Flat Heads

Ask the participants: How many of you have heard about babies with flat heads?

Ask: What causes this?

- ❖ The bones in a baby's skull are quite **soft**.
- ❖ If a baby's head is **always in the same position** when he is lying on his back or sitting in his car seat/stroller, the bones will become **flat from the pressure** on that spot.

Flatness in the center of the back of the baby's skull is actually common in some countries. (photo on left)

But more and more babies are getting flat spots that are off to one side.

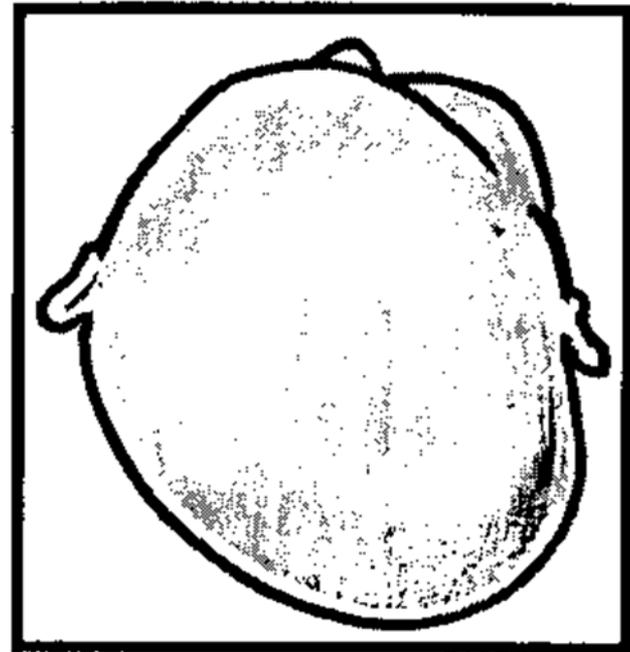
One ear can be pushed forward, and the head bulges out more on one side (photo on right).

Plagiocephaly

PLAY – Gee – Oh - SEF– A-Lee

Plagio = oblique

Cephalo = head



Plagiocephaly

Flatness of the head has a long medical name

It is called plagiocephaly – say it with me:

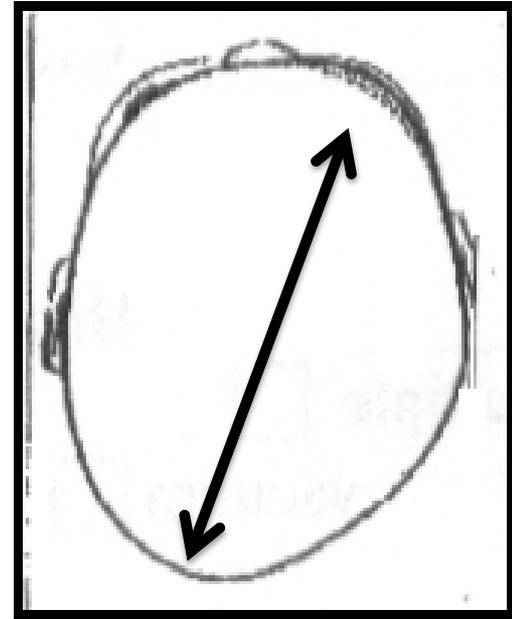
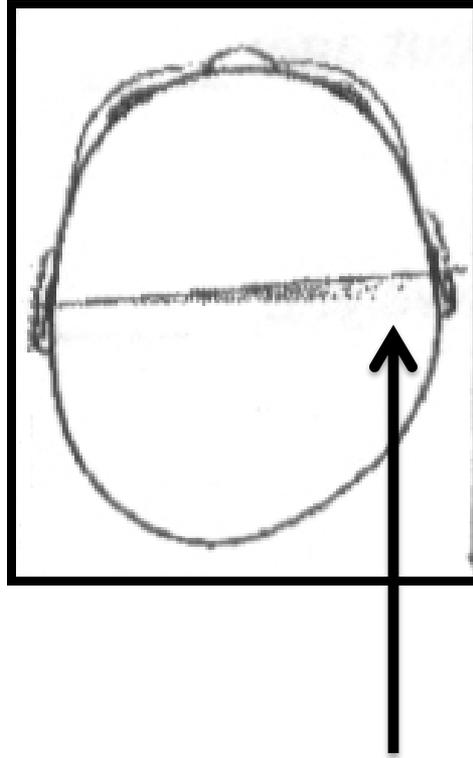
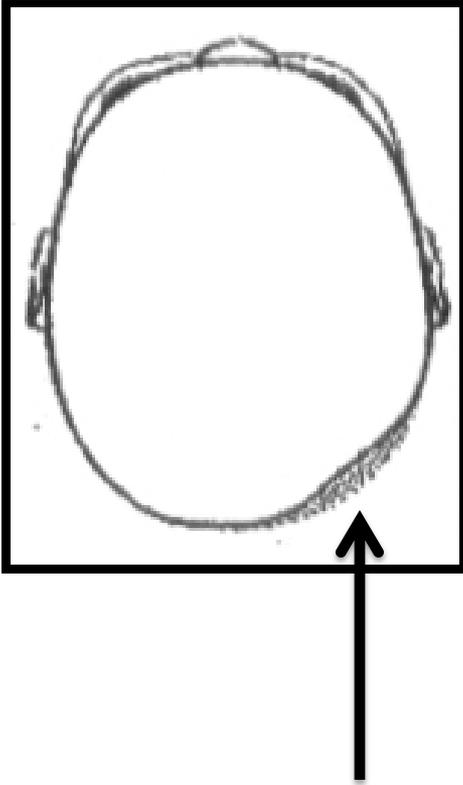
❖ PLAY – Gee – Oh - SEF – a – Lee

It sounds scary, but all it means is ‘slanted or crooked head’

❖ Plagio means oblique, or crooked

❖ Cephalo is the medical name for head

What Does It Look Like?



What Does It Look Like?

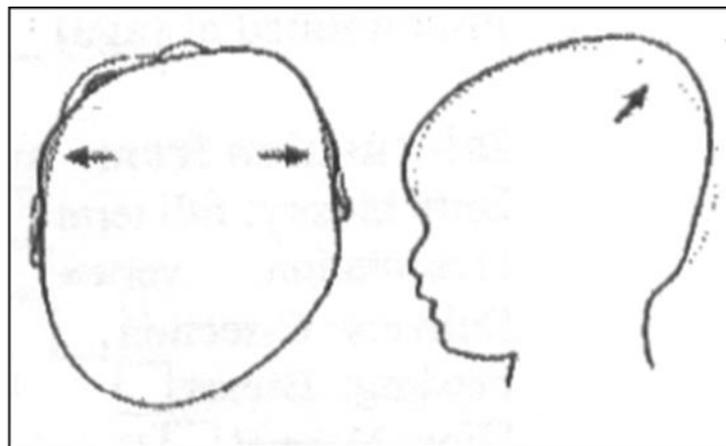
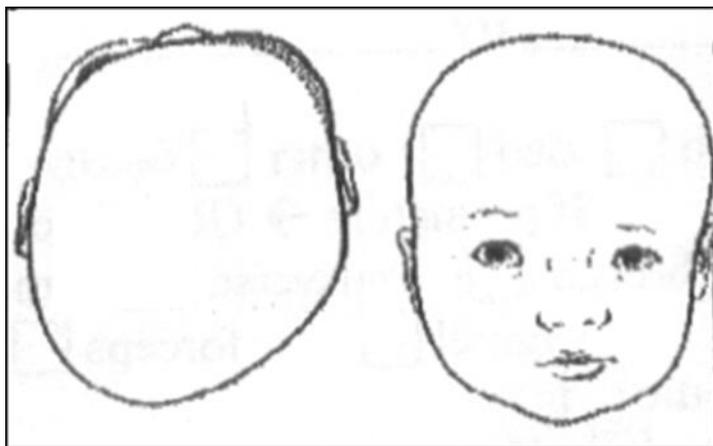
It starts with a flat spot behind one ear (Illustration 1). This can be hard to see at first, but you might notice it if you are looking straight down onto your baby's head, especially after bath time when her hair is wet.

If nothing is done, the flattening will get more noticeable (Illustration 2). You will see that the ear on that side is beginning to push forward (toward the eye) or that one ear sticks out more than the other.

If this is allowed to continue (Illustration 3) the whole head changes shape, and one side of the forehead starts to bulge outwards. People start to notice.

- ❖ **Opportunity for discussion:** Ask moms to check their babies' heads? Tell them that there will be more information in the presentation that will explain why a flat head might happen and what to do if their child has a flat head.

How Bad Can It Get?



How Bad Can It Get?

As the flattening gets worse, there are more changes to all of the bones of the skull.

- ❖ One cheek may look flatter than the other.
- ❖ One eye may look smaller or out of line.

Now it's not just the back of the head that looks flat - your baby's face starts to look crooked too. Even the mouth can shift over to the side.
(illustration on left)

Sometimes the top of the skull will start to bulge out too.

(reference: Argenta L. Clinical Classification of Positional Plagiocephaly. Journal of Craniofacial Surgery 15:3, 2004)

Why Do Babies Get Flat Heads?



Why Do Babies Get Flat Heads?

The bones of a baby's skull are very soft. Anything that puts a lot of pressure on one spot for a long time can change the shape of the skull. Think of a water balloon - if you press on one side, the other side will bulge.

This pressure can start *before* the baby is born from the way he is positioned inside the uterus. It can start during labor or delivery. Most often (now) it starts after the baby is born.

We can divide the most common causes of flat spots into "old causes" and "new causes".

'Old' Causes : Before Delivery

Not enough space:

- Twins (or more)
- Big babies
- Breech



Old Causes : Before Delivery

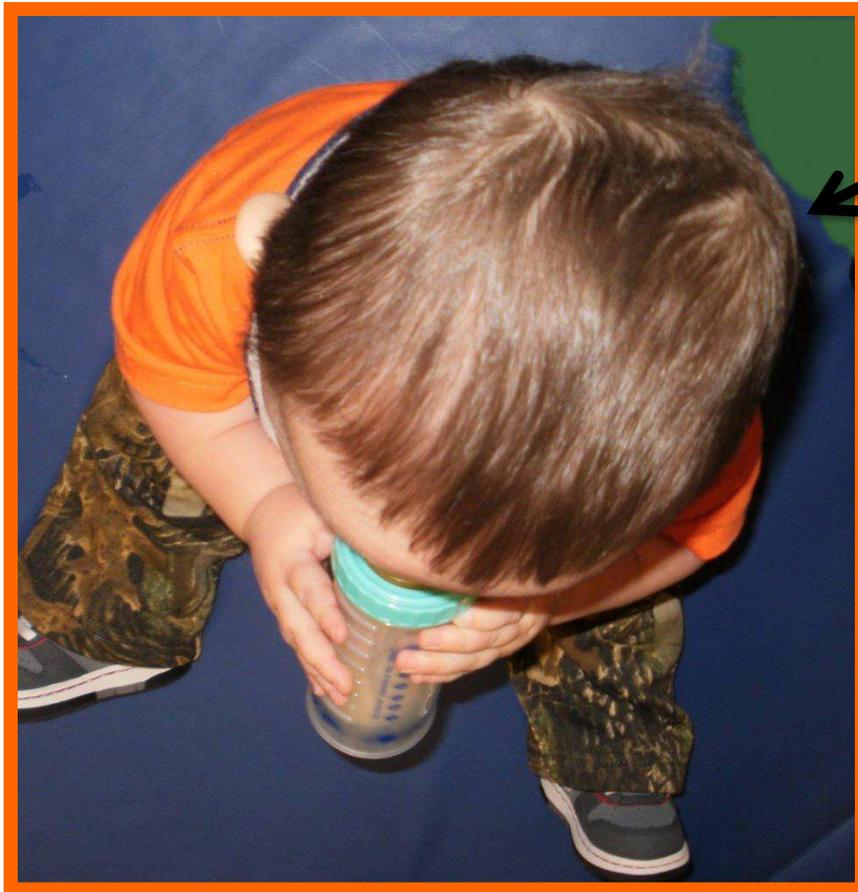
You all remember how much your babies kicked and moved when they were inside you. Babies need space to move around.

- ❖ If there were **two or more babies**, there might not have been enough room, and one baby may have been pressed up against the wall of the uterus. The babies in this photo illustrate this - you can see that if they get bigger they will start to bump into the sides of the basket.
- ❖ If your baby was **very large**, and especially if you are *not*, he could also have been quite crowded in there.
- ❖ The same thing could have happened if your baby was in **breech position** for most of the time - his poor little head could have been pushed up against the wall of the uterus.
- ❖ And some babies get a flat spot because they are pressed up against one of the mom's pelvic bones.

There's not much we can do to prevent this, **but there are things that you can do to make sure that your baby's head shape becomes more normal as he grows. We will be talking about this in a few minutes.**

'Old' Causes : During Delivery

Forceps or vacuum extraction



'Old' Causes : During Delivery

If your baby was delivered using vacuum extraction or forceps, he probably had a strangely shaped skull for a little while.

- ❖ Opportunity for discussion: Did this happen to/with any of YOUR babies?

Because the baby's skull bones are so soft, any tools or instruments that were used to help deliver your baby could 'squash' the bones.

There's not much we can do to prevent this, **but there are things that you can do to make sure that your baby's head shape becomes more normal. We will be talking about this in a few minutes.**

'Old' Causes : After Delivery



- NICU
- Torticollis



'Old' Causes : After Delivery

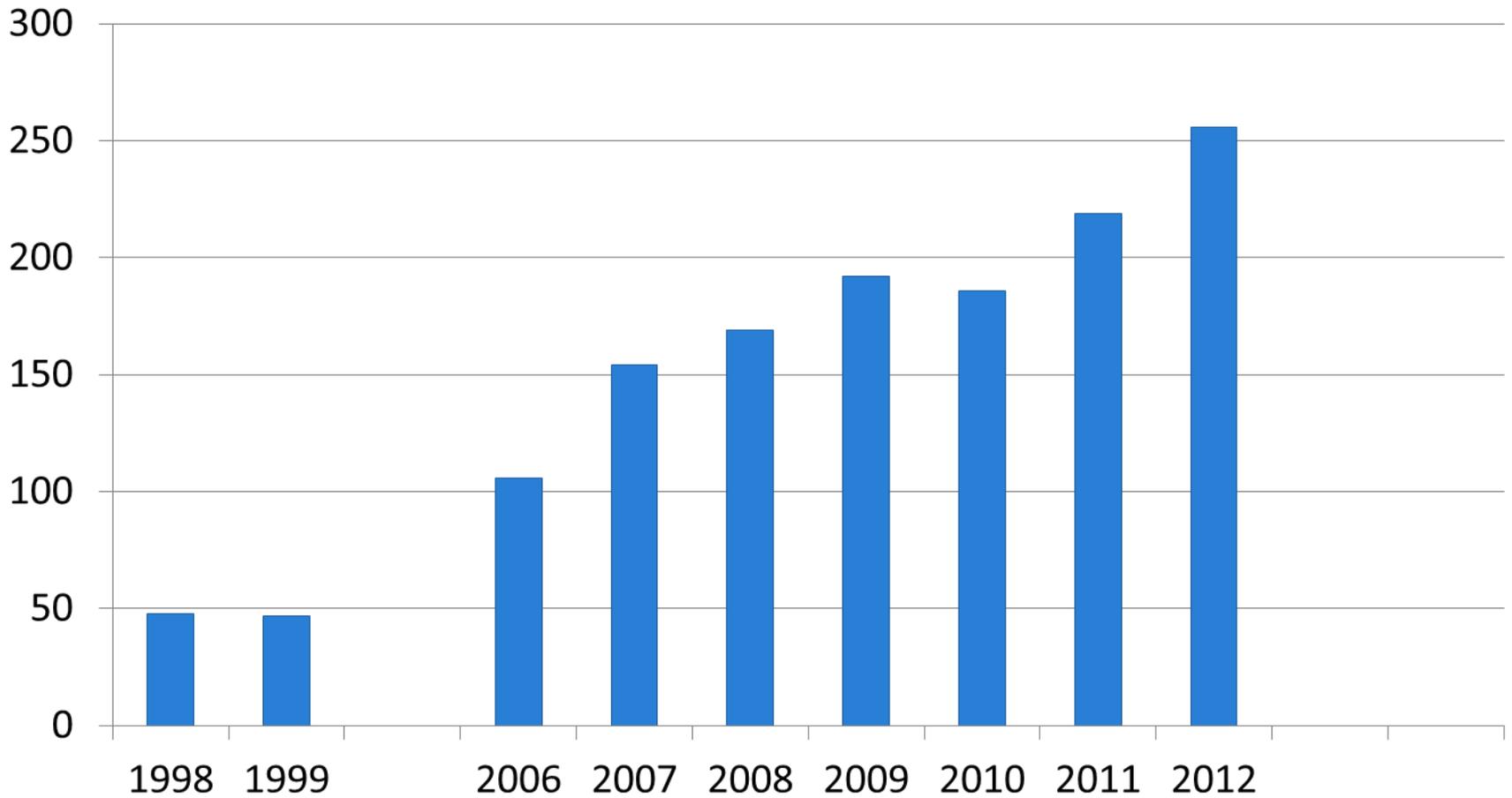
In the past, babies who had to stay in the Neonatal Intensive care were often positioned the same way most of the time (photo). They developed flat heads. Now, health care providers know that they need to change the babies' positions often to prevent this.

Some babies have tightness in a muscle along the side of their necks that makes them keep their heads turned or tilted to the same side all the time. This is called torticollis (photo).

❖ Opportunity for discussion: Do any of you have a baby with Torticollis?

Young babies cannot move their necks out of this position by themselves, so they may develop a flat spot. These babies need to see a physiotherapist for help to stretch the tight muscle.

New Causes: More Babies with Flat Heads



New Causes : More Babies With Flat Heads

There are at least 2 “new” reasons why we are seeing so many more babies with flat heads.

The number of babies with flat heads as increased steadily around the world since the Back to Sleep program began in 1994.

This graph shows the numbers of babies referred to Children’s Hospital over the past several years.

New Causes: “Back To Sleep”



<http://www.nichd.nih.gov/sids/>

New Causes : “Back To Sleep”

Ask the group: “*Why do we put our babies on their backs to sleep?*”

❖ *Answer: To prevent SIDS (or crib death).*

The Back to Sleep Campaign started in 1994 after research showed that this was a good way to reduce the risk of Sudden Infant Death Syndrome (SIDS, or crib death) **This is the recommended way to put babies to sleep.**

Since the start of the Back to Sleep Campaign, only half as many babies die from SIDS compared to before. www.nichd.nih.gov/sids/

HOWEVER: now babies are spending much more time on their backs, and not enough on their tummies. Some parents are actually AFRAID to put their babies on their tummies - even to play - and even as they get older.

Because they spend so much time on their backs with pressure on their soft skulls, they develop major flat spots.

The message needs to be: *Back to Sleep, Tummy to Play.*

New Causes : Baby Containers



New Causes: Baby Containers

Containers are all of the “things” we put babies in throughout a day.

Some containers, such as car seats, are necessary to keep baby safe (photo).

However, when it comes to preventing flat heads, it is important to remember that there are good containers and not-so- good containers

Examples of good containers are, soft baby chairs with a sling seat (photo).
Because these are soft, there is not usually enough pressure on the baby ‘s head to cause a flat spot.

Be Careful With These Containers



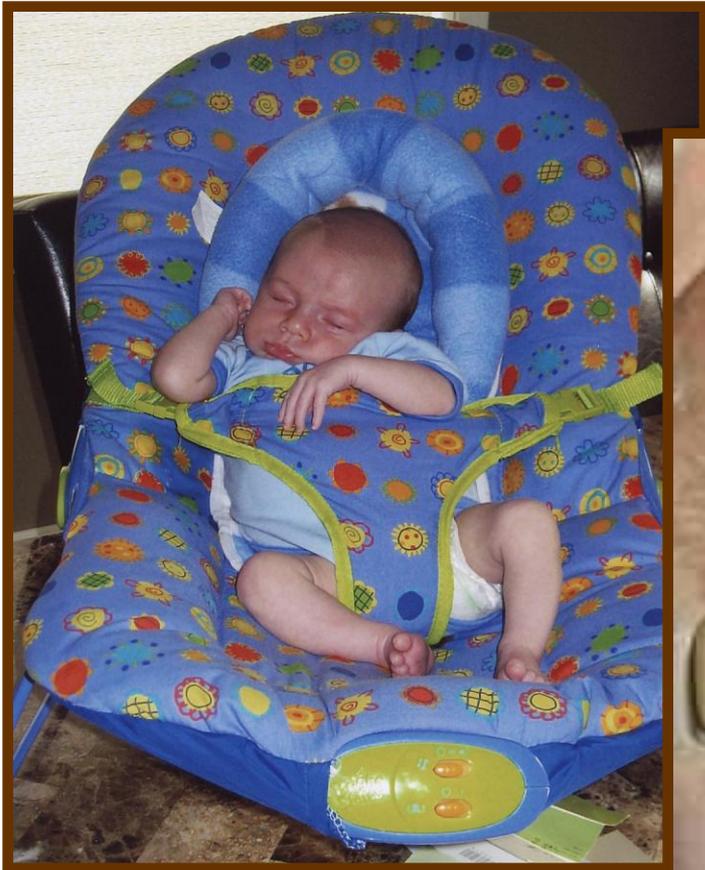
Be Careful With These Containers

Strollers, car seats, and baby swings are hard surfaces for the baby's head to rest on. The amount of time that a baby spends in these kinds of containers should be limited. All-in-one stroller/car-seat units are convenient for parents, but too much time resting on this firm surface will cause a flat spot on a baby's head.

Think about this

- ❖ You put your baby in the car seat, and drive to the mall (Let's say that takes **15 minutes**).
- ❖ You attach the car seat to the stroller. You meet a friend for coffee and visit for **half an hour**. Then you do your shopping. (Let's say that takes an **hour**).
- ❖ You move the car seat from the stroller and back to the car and drive home (another **15 minutes**).
- ❖ When you get home, the baby is asleep, so you leave him in the car seat to finish his nap. He sleeps for another **hour**.
- ❖ That adds up to **THREE HOURS** that his soft skull has stayed on a hard surface.

Limit Time In Hard Containers!



Limit Time In Hard Containers!

Limit the amount of time your baby spends in hard containers. He needs to be in his car seat when he is in the car - but as soon as you get where you are going, take him out...even if he is sleeping.

Even if she loves her swing, try to limit time spent in it during the day.

Be sure to move your baby around often during the day - don't just leave him in one container.

Many babies are spending too much time in hard containers and not enough time on their tummies or being held.

“Good” Containers



“Good” Containers

You are probably asking yourself: how can I get anything done if I can't leave my baby in a seat?

These are examples of good containers:

- ❖ A sling or baby backpack lets the baby look around and keeps pressure off his skull.
- ❖ Babies need to be held – aunties, grannies and dads like to hold them.
- ❖ Play time on the floor is always good.

As Baby Gets Older



As Baby Gets Older

As your baby gets older, containers that help him sit up, with NO pressure on the skull, are available.

Examples of these are:

- ❖ Exersaucers (photo)
- ❖ Bumbo chairs (photo)

How Much Tummy Time?



How Much Tummy Time?

Experts say that your baby should be on his tummy for **at least** 30 minutes every day.

This does not have to be all at once! Spread this out over the day.

Start putting your baby on his tummy for short periods as soon as you get home from the hospital.

- ❖ **Even 2 or 3 minutes at a time is good to start.**

Get in the habit of placing him on his tummy

- ❖ After every diaper change
- ❖ When he wakes from naps
- ❖ For a little play time

Put interesting toys in front of him to encourage him to lift his head.

My Baby HATES Tummy Time



My Baby Hates Tummy Time

Some babies fuss – a lot – when they are placed on their tummies.

Very young babies don't like it because they can't lift their heads up. They can't see what's going on and they might feel like they can't breathe.

Some babies spit up a lot, and Tummy Time makes this worse. If your baby spits up a lot, do not practice Tummy Time too soon after a feed.

Making Tummy Time Easier For Your Baby



Making Tummy Time Easier For Your Baby

Ask the participants to try some of the following positions with their babies:

- ❖ Place baby on your chest while you recline in your chair (photo). This way he can see your face, and you can talk to him. This is also a way to do skin to skin.
- ❖ Place baby on his tummy over your lap (photo). Start with this, then start placing his on a firmer surface as he gets stronger. For newborns, begin with 2-3 minutes at a time.
- ❖ Place baby on a nursing pillow or a rolled up blanket with his arms stretched out in front of him (photo).
- ❖ Face your baby and talk to her when she is on her tummy. Brothers and sisters often like to help, and can get on the floor with baby and show her toys.

Other Benefits Of Tummy Time



Other Benefits Of Tummy Time

Babies who spend time on their tummies:

- ❖ Learn to roll by themselves sooner than babies who don't go on their tummies (photo).
- ❖ Babies who push up on their arms have stronger shoulders and arms (Photo).
 - This might help them to be more coordinated when they start to hold crayons, and use scissors.
- ❖ They learn to crawl sooner (photo).
 - Some babies who don't like tummy time don't learn to crawl. Babies who CAN crawl can explore their world and may learn more quickly.

I've Been Doing All This....



...and His Head Is Still Flat!

I've Been Doing All This But His Head Is Still Flat

By about 4 months of age, babies are moving more on their own and you should notice that their head shape is starting to improve.

If it is not getting better, and certainly if you think it is getting worse, you should talk to your doctor or public health nurse.

Sometimes, there are other reasons that make it hard for your baby to change his head position.

My Baby Doesn't Seem To Move Around As Much As Other Babies



My Baby Doesn't Seem To Move Around As Much As Other Babies

REMEMBER that it is quite normal for babies who are the same age to have different abilities.

Some babies have a hard time moving around because they are bigger, or their muscles are weaker, or in some cases, they have other medical conditions.

Some babies like to move around a lot, while some like to watch before they try new things.

If you are concerned about this, talk to your doctor or public health nurse.

My Baby's Head Is Always Tilted Or Turned One Way



My Baby's Head Is Always Tilted Or Turned One Way

Some babies always keep their head turned to the same side. Others always keep their heads tilted the same way.

This might be because of Torticollis, a tight muscle in the neck.

If you notice this, be sure to ask your public health nurse or doctor about it. They can assess whether your baby should be seen by another health care professional, like a physiotherapist.

What is a Physiotherapist?



What is a Physiotherapist?

Physiotherapists are trained at university to assess and treat all sorts of conditions that affect how people move. There are physiotherapists at Children's Hospital who work only with babies and children.

If the flat spot isn't improving, or if your baby seems to be having trouble moving his neck equally on both sides, or if it seems that he is not moving around the way he should, you may be referred to a physiotherapist.

The physiotherapist will check your baby over carefully and look at what your baby can already do well. He or she will then see if there are any problems that are making it hard for your baby to move, such as tight or weak muscles.

The physiotherapist will show you things that you can do at home with your baby to help her learn new skills. They will work with you until everyone is happy with your baby's skills.

What If I Don't Live in Winnipeg



What if I don't live in Winnipeg?

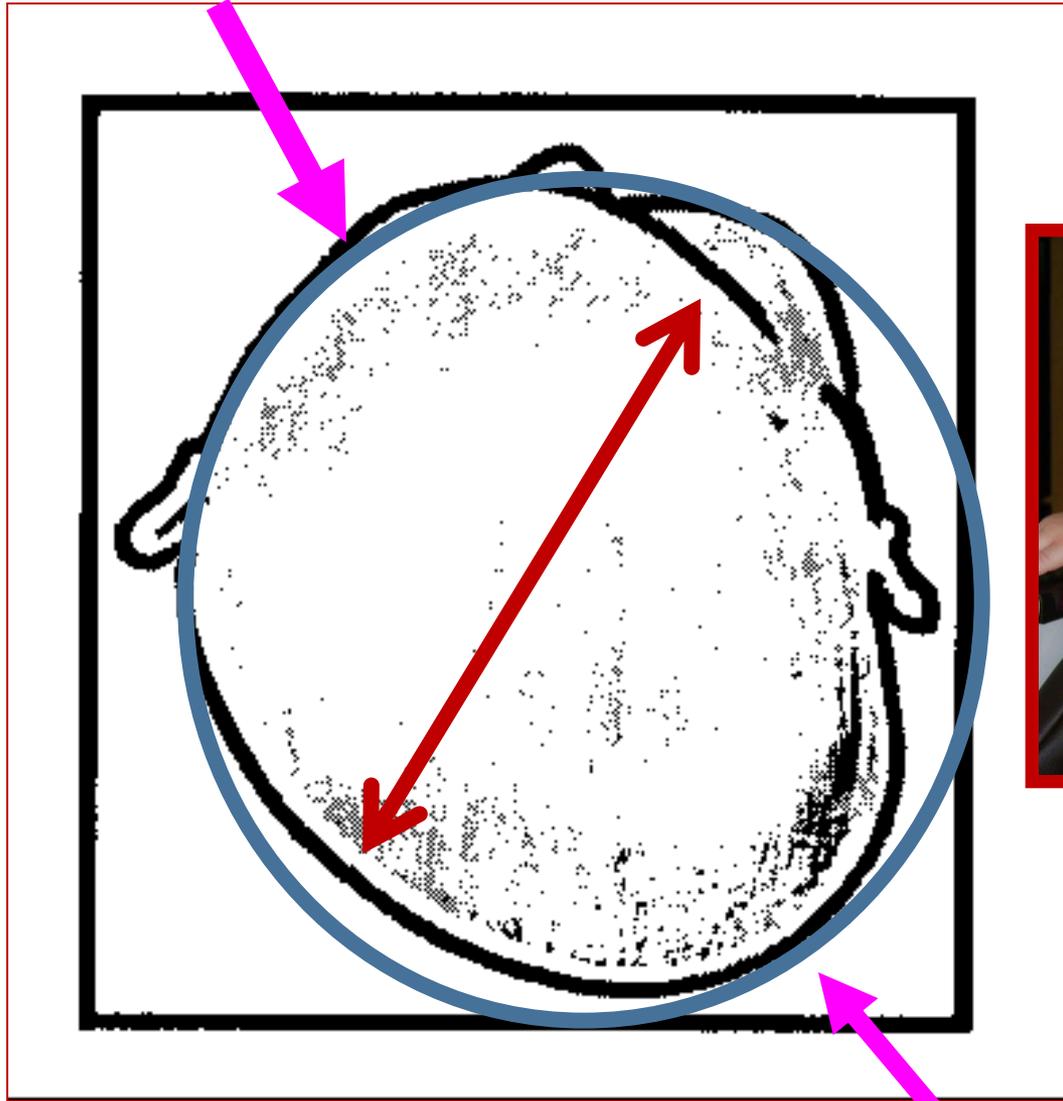
If you live in or near Winnipeg, your baby will be seen by a Physiotherapist at Children's Hospital.

If you live outside Winnipeg, there are physiotherapists who either work in or visit your community. They often communicate with the physiotherapists at Children's Hospital for extra advice and guidance.

There is no cost to see physiotherapists who work in a hospital or health center. In some situations, the physiotherapist may visit you and your baby at home, also at no cost to you.

Referrals for physiotherapy can be made by doctors or nurses, and sent to the Therapy Intake Coordinator for your health region.

I've Seen Some Babies With Helmets. What Are Those For?



I've Seen Some Babies With Helmets. What Are Those For?

Some babies continue to have a flat spot no matter what we do.

As your baby gets older (around 5 months) he will be moving around more. It will be hard to position him to help his head shape improve.

Some babies are sent to a special clinic at Children's Hospital and may get a helmet.

The helmet directs the way that the baby's skull grows. It is made so that the flat spots can GROW INTO the spaces in the helmet (red arrow), while the 'pointed' spots are contained (pink arrows) by the helmet.

More about Helmets



More About Helmets

Helmets are a lot of work!

Helmets must be worn 23 hours every day to be effective.

Helmets need to be adjusted every two weeks.

Helmets do help babies' head shapes improve, and for some babies they are necessary.

However, in most cases, with lots of attention to Tummy Time, and by making sure your baby doesn't stay in hard 'containers' too long, you should be able to avoid having to put your baby in a helmet.

Back To Sleep, Tummy To Play!



Back To Sleep, Tummy to Play

- ❖ **Remember: Back to Sleep, Tummy to Play.**
- ❖ Frequent position changes throughout the day.
- ❖ Minimize time in car seats and hard containers.
- ❖ Holding your baby has many long lasting benefits.

Other ideas to try:

There are lots of ways to help your baby 'exercise':

- Use bright or noisy toys to get your baby's attention so he turns his head both ways.
- Sing action songs and play games to help her move her arms and legs.
- Tie a helium balloon to his stroller to encourage him to look up and turn his head.
- Older babies like to watch and reach for bubbles.

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Thanks to:

All the babies, and their parents who agreed to let us use their photos
for this project.

“What Does It Look Like?” is from Argenta L. Clinical Classification of Positional
Plagiocephaly. Journal of Craniofacial Surgery 15:3 (368-372), 2004