

# WISCONSIN TWINS RESEARCH NEWSLETTER



Winter, 2000, Vol. XIV

Published by: UW Twin Center

## Common Childhood Concerns

### 1. Picky Eating

If one or both of your twins are picky eaters, first make sure they have been examined by a physician to rule out an underlying illness.

#### TIPS

- Be flexible on the "three meals a day" theory. Some toddlers may prefer frequent small meals while others favor fewer large meals. As long as snacks are healthy and include protein, they are fine.
- Don't be surprised if a food that is enjoyed one week is thrown on the floor the next. Preferences can change. Continue to offer your children food that has previously been refused. Introduce no more than 1 or 2 new foods a week. You can also try to hide small amounts of vegetables and finely ground meat in recipes. Use only a few tablespoons instead of cups full. Minimize the amount of fruit juice you give your children. While the vitamins are important, if they fill up on juice they will miss out on important nutrients like protein. Alternative foods which include protein are cottage cheese, cream cheese, yogurt, and eggs.

### 2. Biting

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## Dr. Goldsmith Answers Zygoty Questions

Do you wonder whether your twins are identical or fraternal? Though it might appear obvious in many twins, it is highly possible that there is more to "twin type" than meets the eye. To help you determine the zygoty of your twins, we asked Dr. Hill Goldsmith, the Principal Investigator of the Temperament and Twin Center, to answer some common questions.

### *Why don't some genetically identical twins look identical?*

There are non-genetic influences on physical appearances. One obvious example is a sun tan. However, many non-genetic influences act prenatally, often leading to differences between the left and right sides of a child and also leading to basic shape differences like width and narrowness of boney structures such as the face.

### *Many parents believe even though their children look so alike, they must be fraternal because they act so differently, is this true?*

Twin type is wholly genetically determined. Personality and behavior have roots in experience as well as in genetics, thus we don't necessarily expect twins to act the same. Nevertheless, our

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# New Projects at the Twin Center

The Wisconsin Twin Panel is becoming one of the largest twin panels in the world, and the fact that we use observational data makes us even more unique. As the UW Twin Center grows, its projects become more diverse and far reaching. One of the newest projects is entitled APHECT. This descriptive acronym stands for Affect, Psychophysiology, and Heritability Encoded by the Conduct of Twins. This project uses EEG, heart measures, cortisol, DNA, and behavioral measures of temperament in 6-8 year-olds. It will be the most comprehensive assessment ever conducted of the central, autonomic, and hormonal measures related to emotions in twins.

Included in the APHECT project are two separate visits for the 6-8 year-old twins. The first assessment occurs at the child's home. While at the home, we play many different games with the twins that elicit different kinds of behaviors. For example, in one of the games we set up some toys-ranging from a jump rope to a punching bag-and the twins are given a chance to play with these toys however they want. In another game, we ask the twins to play "Show and Tell" with us by telling us about their day yesterday. In these games, we are studying twin differences or similarities, and by these differences or similarities we can make inferences about the genetic and environmental components of behaviors and emotions.

The second part of the project relies on biological measures to understand emotional development. About a week or so after the first visit in the twins' home, the twins will visit the UW Psychology Building. This portion takes place in Richard Davidson's Laboratory For Affective Neuroscience. In Dr. Davidson's lab, the twins will wear what looks like a swimming cap on their heads. This cap contains highly sensitive sensors that measure brain activity. With this cap, we can study what part of the twin's brains are more

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studies do show that identical twins seem more similar in personality and behavior.

***Do twins have to be fraternal if there are two placentas?***

No. Roughly one-third of identical twins also have two placentas.

***What do dimples and birthmarks or differences in size and weight mean in regards to zygosity?***

They don't mean much. Twins can have birthmarks and dimples in different places and still be identical. Both identical and fraternal twins can have notable differences in size at birth. One reason is because during pregnancy there is sometimes an unequal sharing of the placental blood supply.

***Can either identical or fraternal twins run in a family? For example, if fraternal twins run in someone's family, does that mean their twins are fraternal?***

Fraternal twins can run in families due to an inherited tendency to ovulate more than one egg. However, just because fraternal twins run in a mother's family, it does not mean she cannot have identical twins. It is more doubtful whether identical twins run in families although there is some controversy about the issue.

***Will identical twins have a stronger bond than fraternal twins? Do they seem more connected?***

This is a hard issue to do good research on because the nature of the twin bond can change over time. It is widely believed that identical, female twins as a group tend to have the strongest bond, although some identical, female twins may feel less connected and some opposite sex fraternal twins can feel extremely close.

♥

(Biting From Page 1)

### **Why do children bite?**

EXPLORATION - Infants and toddlers learn by touching, smelling, hearing, and tasting. One of the first places a new toy goes is in the mouth. Tasting or "mouthing" things is something that all children do. Children do not always understand the difference between gnawing on a toy and biting someone.

INDEPENDENCE - Toddlers are trying hard to be independent. Learning to do things independently, making choices, and needing control over a situation are part of growing up. Biting is a powerful way to control others. If you want a toy or want a playmate to leave you alone or move out of your way, biting is a quick way to get what you want.

FRUSTRATION - Young children experience a lot of frustration. Growing up can be a real struggle. Toddlers don't have good control over their bodies yet and they cannot talk well. They have trouble asking for things or requesting help. When they can't find words to express their feelings, they may resort to hitting, pushing, or biting.

STRESS - A child's world can be stressful, too. A lack of daily routine, interesting things to do, or adult interaction are stressful situations for children. Children also experience stressful events like death, divorce, or a move to a new home. Biting is one way to express feelings and relieve tension.

### **What can parents do about biting?**

#### PREVENTION.

A simple solution in some cases is to offer food. If twins seem to bite frequently when tired or hungry, you may want to look at your daily routine to be sure that they are getting enough sleep and nourishment.

If the biting occurs when your twins are fighting over a toy, you may want to purchase an extra toy. It does not work to make very young children share. Toddlers don't have the skills to negotiate or understand

another child's perspective.

If twins are experiencing a stressful family situation, you will want to make everyday life as supportive and normal as possible. Predictable meals and bedtimes and extra time with a loving adult can help. Often, experiences like rolling, squishing, and pounding play dough or relaxing and splashing in the bathtub are great ways to relieve tension.

#### TEACH NEW BEHAVIORS.

When a child bites, show the biter with your voice and facial expression that biting is unacceptable. Speak firmly and look directly into the child's eyes. You may also want the child to help wash, bandage, and comfort the victim. Making her a part of the comforting process is a good way to teach nurturing behavior.

### *3. Sleeping*

#### **Why do I have so much difficulty putting my children to bed?**

Most children have difficulty with transitions, or changing from one activity to another. One of the most difficult transitions is bedtime. You can help your children to settle down for bed by making sure that they are tired at bedtime. If they sleep too late in the mornings or nap too long during the day, they may not be tired. Also, avoid stimulating activities after dinner. This will help their body systems adjust to the slower pace of sleep. A bedtime routine is very important. It is comforting for children to know the process, and it is easier for them to accept bedtime through a series of small steps, like putting on pajamas and brushing teeth, than as an immediate change. If you put your children to bed at the same time every night, their bodies will help signal that it is time to sleep. Some children are very anxious around bedtime, which makes it very difficult for them to fall asleep. Be calm and reassuring and show confidence in their ability to fall asleep. Sleeping is essential for healthy bodies, and teaching your children how to go to bed peacefully will help them develop health habits that last a lifetime. \*

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active or excited during the different games we play with them. They will also wear two spot sensors and two bands on their body to monitor their heart rate, cardiac output, blood flow rate, etc. Finally, three sensors will be placed around each eye to measure the child's eye blink response. After the twins have all the appropriate equipment, they are ready to participate in some games that are similar to the ones done at the home visit.

All of these study methods are completely safe, and they offer many interesting results. With this project, we hope to identify what brain regions are important for emotions, and also identify the genetic and environmental influences on biological aspects of emotional development.

The Wisconsin Twin Project (WTP) is also beginning a new and exciting study. We have recently been awarded a grant from the National Institute of Mental Health to fund this very important research. The grant will support our follow-up of six to eight year old twins. In the past we have interviewed families over the telephone and sent questionnaires, our new project will give us the opportunity to meet twin families by visiting their homes. Our goal is to determine why some children develop behavioral problems and others do not by studying three groups of children. We will visit the homes of families who have previously reported their twins as (a) very shy and quiet, (b) very outgoing and active, or (c) falling somewhere in between these two groups. We will play a number of emotion-eliciting games with the twins, interview the twins with puppets, and interview a parent about the twins' typical behavior. During the pilot phase of this project, most children found it to be quite fun and thoroughly enjoyed all the attention directed toward them. By studying twins and their environment we can begin to disentangle genetic and environmental influences on behavior and behavior problems. In order to reach this goal, we must include *all* types of twins in our project. Understanding the development of behavior and behavior problems is key in designing and implementing prevention and intervention programs for children. ♥

## Research Update

The following paper and poster titles will be presented at the Midwestern Psychological Association Conference in May, 2000. It is due to the time and efforts of families in all of our projects that we are able to report such findings. Thanks again for all of your hard work!

- An examination of the relationships among obstetrical complications, child temperament, and parent stress in a sample of twins.
- Predicting embarrassment in the second year from reactions to strangers in infancy.
- The etiology of the relationships between early difficult temperament and later behavioral problem symptoms.
- Etiological distinctions among childhood sadness, conduct problems, aggressive behaviors, and physical health problems.
- Development of non-autonomous pride & shame reactions and sense of self in the second year.

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# GOAL SETTING:

## Gaining Opportunities to Achieve in Life

Life is easier and more successful when goals are set, individual steps are planned, and the first step is taken down the road to your final goal. As a personal venture or as a family endeavor, there is almost no part of life that does not benefit from goal setting. The best way to begin is by placing value on the goal in sight.

Placing value on a goal establishes motivation for action. A great way to do this is by making a collage that exemplifies your goal and putting the collage where you will see it every day. Place it beside a mirror where you will see it in the morning and then when you see the goal and see yourself, you make a real commitment throughout the day. This is a great technique for anyone over age 3. Whether the goal is to smile more, be better at sharing, walk the dog every day, or trying new activities, a collage can display this in a creative and special way. All you need is a piece of paper, some old magazines, child safe scissors, and tape or glue. Making personal collages or a bigger family collage that everyone helps put together is a great project. When you are done with the collage, share it with the family and tell why you picked certain pictures (and words for the older children and adults) to give your goal meaning. If you have thought about your goal, you have seen your goal on paper as bright pictures and bold letters, and said your goal out loud to others, you are ready for the next step in achieving your goal.

Placing value means doing what lasts. Young children will need guidance in this area. Consider what you are capable and willing to do to achieve your goal. Be sure to construct a plan you can stick with that is healthy and fun. If the goal is to keep a bedroom tidy and it's a disaster area right now, start by deciding if there is anything that can be thrown out or put in a basement or attic. When you have eliminated what you don't need, keep some toys, stuffed animals, books, or

other possessions organized on a shelf in the closet or in a covered bin under the bed. This might be a project you work on in stages. Start with the closet. Listen to your favorite music while you tackle this task and allow yourself to sit and look through an old photo album or try on an old hat. The important thing is to find a way to make the project fun and rediscover old treasures.

Placing value results from making good connections. Surround yourself with positive people who support your effort. There are many people who are experts in areas that you have been struggling with and they would love to help you. If you want to take up camping and don't know where to start, contact the State Parks Department or the Chamber of Commerce for resourceful people who know just how to help. Many places offer great rental equipment.

Placing value and enhancing effectiveness by working together and merging individual goals multiplies efforts, assets, and power to achieve. Being a TEAM means, Together Everyone Achieves More. Family and friends make great teams.

Many educators suggest a Progress Tracker. Personalize your own poster and use it to track progress toward the agreed goals with stickers or colorful crayon smiley faces as tracker points. Have set rewards along the way. If the goal is to keep the bedroom tidy, set small rewards at 7, 14, and 21 days. Rewards keep people going while the many positive behaviors and benefits of the goal become a habit.

Goals are an intricate part in the fabrication of our life. They tie and bind the thoughts and actions that bring us purpose. They serve as objectives for our talents. When progress is slow, try new approaches and restructure tactics. Make things happen! Celebrate every step of the way.

