

## **Thank You**

As we greet you this fall, we want to thank our twins again for all their support. Our research could not continue without your faithful contributions of time and resources. Although twin research is active in many areas of health and behavioral studies, we wanted to highlight some discoveries that would not have been possible without the help of twins.

- Twin research has shown that genetic factors play a substantial role in the risk of alcoholism and drug dependence.
- There are important differences in the causes of substance use in adolescence. Whereas genetic factors are more important in explaining girls' use of tobacco, alcohol, and drugs, environmental factors, such as peers and family effects have a greater influence in boys.
- Twin research has helped us clarify that genetic variation in the serotonin system in the brain — the same system affected by most modern antidepressants — impacts substantially on the risk of developing episodes of major depression after a stressful life event.

## **Twin Blessings**

Many consider twins a blessing. So I guess you can consider identical twins, 71-year-old Martha and Mary a double blessing indeed! Martha and Mary were the oldest donor and recipient pair in a bone marrow transplant.

Martha Carlile, having survived cancer twice herself, was pivotal in saving her twin sister Mary Deyhle's life. After proving that Martha and Mary were identical twins, Martha was able to donate the blood stem cells for a bone marrow transplant.

“Because Martha and Mary are identical (Mary's) immune system didn't recognize (Martha's) stem cells as foreign and did not try to reject them.” “Being the oldest on record to be a donor and a recipient, ...they didn't know exactly what to expect”, said Martha. One month after the transplant Mary underwent a bone marrow test. No leukemia was found.

“Looking back...” Martha said, “I never even considered not being a donor. It was a wonderful experience, and we thank the Lord every day that the transplantation worked. It was definitely a miracle!”

(Copyright Dothan Progress. Story content used with permission. Compiled from articles by Dollie J. Moore in Volume 34, Number 25.)

## **TWIN RIVALRY?**

Sibling rivalry may be easier to spot than to define. Sibling rivalry is, in essence, a competition between brothers and/or sisters (or in some cases relatives of similar age living within the same household) for attention, praise, and a place within the family. Children who are further apart may have different interests,

be more assured of themselves, or simply not take as much of an interest in the doings of their older, or younger, siblings. As bad as the fighting can be between two brothers (or sisters), imagine if you had to share not only mom and dad, but also your age, your grade in school, maybe even your teacher, perhaps your room and even your birthday! This is the sort of thing that parents of twins (and higher multiples) must face everyday. But for many, as bad as the fighting can be, they are very dedicated to one another as well.

There are several ways to help your twins deal with the issue of sharing so many aspects in their lives. Always having to share mom and dad can be a big issue. If possible, arrange some individual time for both children where they don't feel they must compete for your attention, but have you all to themselves. Also allowing for individual tastes and activities, as money allows, can be helpful. Separate activities may be the solution: soccer team for one and swim team for the other twin is one way to go; or a more economical way may be cooking lessons with mom, and visits to the library for the other twin. Try all along to see your twins as individuals and support them in seeing themselves this way. It will make them feel more secure and give them the confidence to find their own path.

You should have a "the sky is the limit" attitude towards the development of your preschool aged twins. Just "step back and observe." They are just beginning to strive for independence from you and there is no telling what their personalities will ultimately be like. Let them just be themselves as much as possible. As a primary school student (age 5-8), the twins will need to learn about friendship outside the twin relationship. You may need to work on separate birthday parties and separate playdates to give the twins a chance to express themselves and have different interests and companions. Twins 9-12 years old may feel the need, more than ever, to "stake out their turf." They will want to have the ability to claim "I am good at this; or I am better than you at this." They will also be trying on their own to decide if they want to be together or apart in many activities.

As twins get older (13-17 years old), this push/ pull effect in their relationship can bring out strong emotions. Allow for a little alone time with the "left out" twin if one decides to be on their own. They really have a strong desire to be liked for "themselves" at this age. As your teen twins are becoming more independent they will still occasionally "check-in" for reassurance as they try to stretch their wings.

When you are trying to understand your twins you must remember that they share most things about their lives. They share the same place in the family hierarchy. For example, if they are your first-born children, both could be considered "first-born" children. They must share you and your partner's attention from birth, they are the same age, in the same grade (in most cases), and may even have the same school room or room at home. This constant comparison can inspire a natural competitive nature in some children. This competition is not always healthy though and can become painful or result in one of them "opting out." Opting out refers to one child deciding that instead of trying to be best, or struggling to be recognized in an activity, that they will simply no longer participate. This can have obvious negative effects when schoolwork is involved. Conversely, the twins may polarize, and one decides she's "punk" and the other decides to be more "conservative." With many there is a constantly changing relationship with leadership and preferences. Just encourage their strengths, whatever they may be. Every person has their own strengths and abilities. Try to encourage each child and praise them for what is uniquely theirs in school and other parts of their lives.

Independence or individuality of the child must be encouraged. This can be especially difficult in adolescence when twins are trying to become independent of parents and each other. Some may go to extreme lengths to be different from each other; others, though they try may find due to similar tastes they have chosen the same outfit or the same activity even while they were apart from one another. Simply encourage all parts of their lives as twins and as individuals. Make sure to point out the advantages of some alone time, so that it is not a devastating thing to be the twin who is not participating at this time.

Let them have their own space (even if it is in the same room.) Each child can express their individuality and tastes. Encourage them to have their own friends, make their own choices and have their own possessions. Encourage them to express themselves, whether it is good or bad feelings, but in a constructive way. For instance say, “I feel left out when....” not, “She gets all the attention.” Don’t compare one to the other, but rather praise each for what they are good at doing.

If your twins physically fight, there are many things you can do. All the rules that apply with singletons are true here as well. You can try grounding, time out, and / or counseling as time and money allow. Many parents have found that to survive in their busy households that they must pick and choose what they “fight” about. In *The Art of Parenting Twins*, the authors suggest laying down the rules of fighting. Several parents contributed what they considered to be the rules of “fair” fighting.

- \* No foul language
- \* No hitting in the face
- \* No kicking
- \* No throwing / striking with toys or other objects
- \* Physically disengage if pre-established cue words are used (i.e. “stop” or “Time-Out”)
- \* Establish a time limit

Resources for this article:

Bryan, Elizabeth (1992). *Twins, Triplets and More*. New York: St. Martin’s Press.

Friedrich, Elizabeth & Rowland, C. (1983). *The Parent’s Guide to Raising Twins*. New York: St. Martin’s Griffin.

Malmstrom, Patricia M., & Poland, J. (1999) *The art of parenting twins: the unique joys and challenges of raising twins and other multiples*. New York: Skylight Press.

Pearlman, Eileen M., & Ganon, J. A. (2000). *Raising Twins*. New York: Harper Resource

### [Separate or Together?](#)

As the time for school rolls around, again, parents of twins have a big decision to make... should I separate my twins or keep them together in the classroom? There are a lot of points to consider when discussing this issue with teachers and other school officials. We have compiled a list of pros and cons to help make the decision easier. It is important to remember that no decision is irreversible. Parents and school officials should be flexible in determining what is best for your children. Classroom placement should be reviewed yearly. Also, your twins can be the best resource as to whether they want to stay together or be apart.

### [Pros of keeping twins together:](#)

- Multiples get a sense of security and comfort from one another
- Most twins work well together (One twin can help her/his co-twin excel in the skills that s/he may lack)
- Keeps parents' life simpler by having only one teacher and one set of homework (cuts down on teacher comparisons)
- Twins can learn independence through working in separate groups and socializing with others in the classroom
- Teachers are more likely to understand how the children operate as multiples (twins teach the teacher about the special bond of multiples)
- Avoid the stress that would be put on twins if they were to be separated against their will. Stress could cause problems socially and academically.

**Cons of keeping twins together:**

- If one twin is more academically advanced than her/his co-twin, then separation may be the best option
- Teachers are likely to confuse the identities of the twins, possibly upsetting the twins
- Twins are more likely to be compared by the teacher and other students
- Twins may not be able to operate as individuals within the classroom
- Some twins may demonstrate disruptive behavior if placed together
- Twins may compete with one another, so that their main goal is to keep up with or beat their co-twin
- If they are closely dependent, they may have problems socializing with other children in the classroom
- There may be lack of privacy if one twin reports on the progress and activities of the other to parents

**Resources:**

1. "Raising Twins: From Birth Through Adolescence" by Eileen Pearlman, PhD, and Jill Ganon
2. "The Art Of Parenting Twins" by Patricia Malstrom and Janet Poland
3. Latrobe Twins Study, "Twins In School" produced by Australian Multiple Birth Association (limited availability on line at <http://www.amba.org.au/>)

\*\*\* If you need more information please feel free to contact us by email or phone.

**Birth Order and Twins**

There are many ideas about how birth order impacts children. One of the better known theories may be from a 1998 study that said, "Children's perception of their place in the family constellation influences how they feel about themselves, and how they interact with each other." (Kottman & Johnson, 1993 in Nims, 1998) Adler has one of the more in depth studies of birth order characteristics. However, where do twins fit into this? Does being born five minutes earlier really influence the child's idea of his place in the family?

**Adler's Birth Order Characteristics**

Position	Family Situation	Characteristics
----------	------------------	-----------------

Oldest	Dethroned by next child. Has to learn to share. Parental expectations usually high. Given responsibility and expected to set an example.	May become strict, acting as a second “parent.” Feels power is his/her right. Can be helpful if encouraged.
Second	Has someone to set the pace, there is always someone ahead of him/her.	Is more competitive, wants to overtake older child. May rebel or try to outdo everyone. Competition can deteriorate into rivalry.
Middle	Is “sandwiched” in. May feel ignored or “squeezed out” of a position of privilege and significance.	Even-tempered, “take it or leave it” attitude. May have trouble finding a place or become a fighter of injustice.
Youngest	Has many “mothers and fathers” in older children. Never dethroned.	Wants to be bigger than the others. Can stay the “baby.” Frequently spoiled.

There is not a lot of research specifically on how birth order affects twins. Many experts believe they will organize their ideas by their overall place within the family. For instance, if they are the last born in a family, both will have many of the characteristics of the baby in the family. Conversely, if they are oldest they may act out many of the traits of firstborns. This is not the only opinion, however. Some twins become a self-fulfilling prophecy, living out parental expectations. One twin treated as the older will take on many of the firstborn characteristics reflecting the parents’ expectations. On the other hand, many twins will exchange dominance throughout their lives, seemingly alternating between birth order categories.

All of us probably know some children that seem to model the behavior expected of their birth order (i.e. “firstborns are organized, high achieving, somewhat conventional”). You also probably know many that would never fit this role. Many factors including a parent’s age and status, temperament or behavioral styles of the children, the gender of the siblings (i.e. a boy in the middle of two sisters) and the personality of the parents can all influence and perhaps even be more dominant in determining a child’s’ behavior than birth order. Some children will fit a niche other than the one formed by birth order. One might be the “serious student” and the other become the “class clown” in order to distinguish him/herself from their twin.

The best bet may be to foster children’s individual personalities outside the realm of birth order. To do this you can:

- Adopt a consistent, neutral set of expectations that will allow each child to fulfill their inherent personal destiny
- Avoid birth order stereotypes that are meaningless for twins
- Downplay the significance of birth order; if necessary, choose not to identify the multiples’ birth order
- Discourage others, including extended family, teachers and curious strangers, from overemphasizing birth order

Resources for this article:

Toman, Walter, Ph. D. (1993). *Family Constellation: Its Effects on Personality and Social Behavior*, Fourth Edition. New York: Springer Publishing Company.

<http://multiples.about.com/cs/familyissues/a/twinbirthorder> About: Birth Order and Twins. From Pamela Prindle Fierro, Your Guide to Parenting of Multiples. Feb. 16, 2004.

<http://www.drspock.com/article/0,1510,6133,00.html> Twins: Making Sense of Birth Order by Robert Needleman, M.D., F.A.A.P.  
Birth Order Is Not Destiny by Robert Needleman, M.D., F.A.A.P.

## Zygosity Testing Sites

	DNA Diagnostics	Proactive Genetics	Genetics & IVF Institute	Beta Paternity Testing	Affiliated Genetics	Molecular Genetics Clinical Lab
Location	Ohio	Massachusetts	Virginia (and other locations)	None Specified	Utah	Florida
Website	<a href="http://www.dnacenter.com">www.dnacenter.com</a>	<a href="http://www.proactivegenetics.com">www.proactivegenetics.com</a>	<a href="http://www.givf.com">www.givf.com</a>	<a href="http://www.paternity-dna-test.com">www.paternity-dna-test.com</a>	<a href="http://www.affiliatedgenetics.com">www.affiliatedgenetics.com</a>	
Phone No.	800-613-5768	781-639-5126 fax- 800-701-3109	1-800-482-3025	1-800-798-3810	1-800-362-5559 1-801-582-4200	lab: 727-892-8985 director: 727-892-8611 fax: 727-892-8367
Email	N/A	<a href="mailto:lab@proactivegenetics.com">lab@proactivegenetics.com</a> <a href="mailto:info@proactivegenetics.com">info@proactivegenetics.com</a>	<a href="mailto:givf@givf.com">givf@givf.com</a>	N/A	<a href="mailto:service@affiliatedgenetics.com">service@affiliatedgenetics.com</a>	N/A
DNA Sample	Amniotic, blood, umbilical, cheek cell	cheek cell testing	blood and cheek cell	cheek cell and hair follicle	cheek cell	blood
Turnaround Time	9 working days	10 business days	3-4 weeks	15 working days	10 working days	2-4 weeks
**Cost	Starts at \$400	\$140 per pair	\$270 per person	\$200 per pair	\$120 per pair + \$10 (shipping and handling)	\$517 per pair

\*\* Prices subject to change. Please check with the company for the most up to date prices.

## **Open For Business**

The Mid-Atlantic Twin Registry (MATR) has recently converted all of its paper files to a new completely computerized system that can be easily updated. Now, a participant's status in a study is noted in our intranet (internal computer) system and this prevents twins active in one study from being telephoned for another ongoing MATR-based study at the same time. Twins may occasionally be contacted about information updates while an ongoing study is in place. However, we do try to limit the demands on our twins' time. The move from paper to computer was at times challenging. All the records from many studies had to be reconciled. If there were repetitions of names, we had to be positive that it was the same person or both files had to remain in our computer.

The records refit took several months, but we are back in the business of research. Up to date record keeping is now much more efficient. Even when twins decline to participate that information is received within 24 hours and updated in a central database of all our twins as soon as possible and these matters are a first priority. For participants, address updates and name changes are noted and changed as quickly as the personnel can handle the information. In the past some studies handled the actual paper files and then later we would get the resolution when the study was complete. These studies often took many years and their records were not kept in the same fashion as ours. So, in some cases, there was confusion as to whether a person was registered, whether they had dropped out of the registry, or had just been hard to locate. In order to rectify these confusing differences in the files, we started going over the files one by one to fix any inconsistencies. Due to the size of the registry, this took quite some time. We followed a recommendation from the Institutional Review Board (IRB) to suspend operations until the new system was in place. To the best of our knowledge the files are now correct. The secure new computerized system of record keeping should help eliminate these issues.

If you have information you need to change, you may always call us at (800) URA-TWIN or (800) 872-894; e-mail us at [www.matr.vcu.edu](http://www.matr.vcu.edu); or write to us at P.O. Box 980003, Richmond, VA 23298-0003 and we will update your file. Whether they are active participants, or not, twins are important to our work.

###