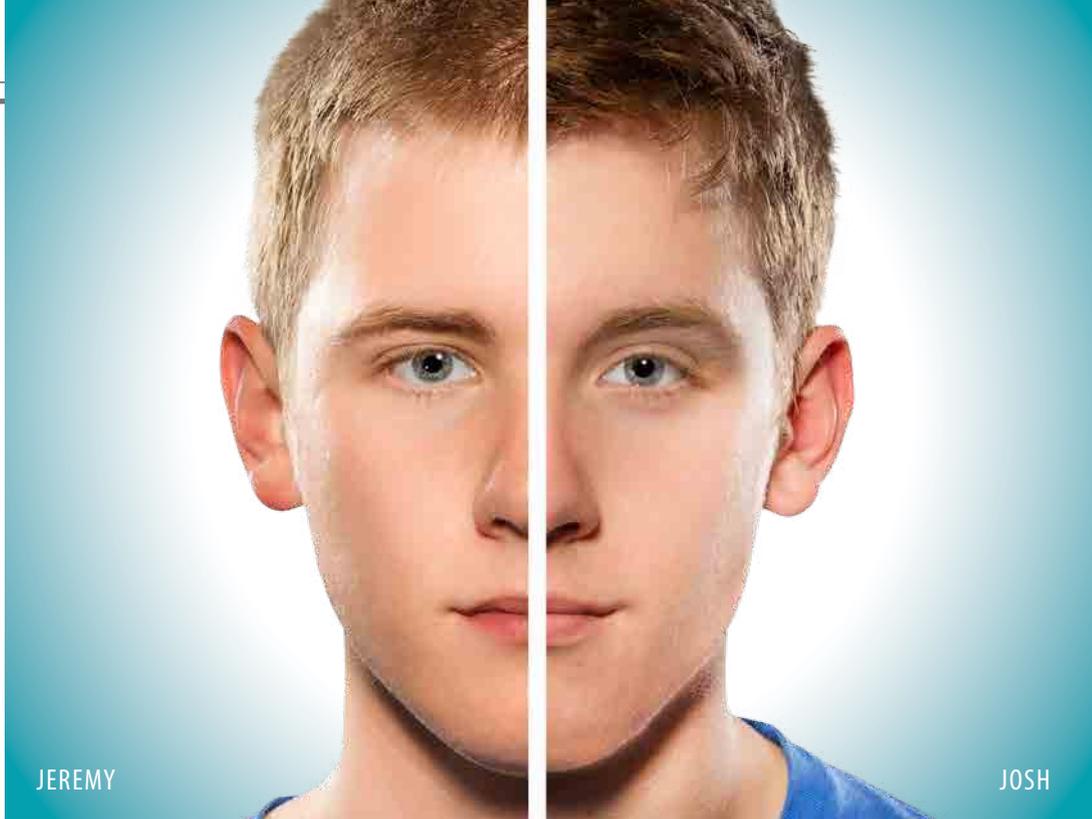


TWO of a KIND



Mary Kate and Ashley Olsen made twinning cool in the '90s. *The Parent Trap* had everyone hoping they'd find the other half of their dynamic duo someday at summer camp. **But there's more to twins than just identical and fraternal**, and Hollywood has glamorized multiples to the extreme. There is a whole world of science behind twins and triplets beyond identical movie stars who switch places on their parents. Most of it happens before they're even born, and when you factor in a third baby or a fourth, the differences become endless.

written by **KATIE M^CPERSON** | *photos by* **JOHN JERNIGAN**



TEEN TWINS

Josh and Jeremy Hartley, 17, can certainly relate. They're mirror-image twins, which occurs in approximately 23 percent of identical twins when the egg splits seven or more days from conception. When the left and right sides become individual, their traits are reflections of each other's. The most extreme cases reported describe one twin with all of his or her internal organs reversed from the normal order. In most cases, twins' hair parts in opposite directions or their glasses prescriptions are reversed.

"I like telling people we were one person at one point," says Jeremy, just one of the reasons he doesn't mind a life of twinning. These laid-back boys have similar demeanors, walks and taste in clothes. Their reflected traits include opposite dominant hands and reflected birth marks on their foreheads. Each bore a birthmark on opposite legs when they were younger, too. But these brothers prove that twins aren't clones—even their similarities highlight their differences.

"Josh's interests are more athletic, and he used to play football. Jeremy is in ROTC. As a mom, I still see both of their

demeanors as easygoing and laid back," says their mother, Sheila. "The same subjects come easily to them both. They both have a bit of an artistic ability in drawing and playing the guitar. Jeremy loves to read fiction, and Josh likes to read nonfiction." They aren't huge fans of being considered mere reflections though, and mistaken identity isn't uncommon.

"People ask him how my girlfriend is," Josh laughs.

Jeremy says their teachers frequently mistake them for each other, too.

"You get associated with each other way too much, and

the other one gets brought up in conversation all the time. I've had people actually call me 'twin,'" he said.

For Josh, it's being compared, sometimes right in front of each other, that he dislikes. The "twin telepathy" stereotype is one they face frequently as well.

"People ask me 'Where's Jeremy?' I get sarcastic with it because it's annoying. We're at school; I don't know where he is," Jeremy jokes after miming a walkie-talkie to page his brother.

"When we were younger, if one of us had an idea or something you had to explain, the other one just knew. We're not telepathic, but we think alike," Jeremy explains. Sheila describes them as being similar to a married couple—they just get each other. Despite the cons, these mirrored brothers are grateful for their closeness in age and so is their mother.

"Even with our differences, we have an age relation," says Josh.

"Hey, I have a twin brother. It's like a built-in pickup line," Jeremy jokes, thankful for his built-in wingman.

TWIN FAMILY TREE

IF IDENTICAL TWINS (WHO HAVE IDENTICAL DNA) EACH HAVE CHILDREN, THEIR CHILDREN ARE GENETICALLY HALF-SIBLINGS. IF IDENTICAL TWINS MARRY OTHER IDENTICAL TWINS, THEIR CHILDREN WILL GENETICALLY BE FULL SIBLINGS AND LEGALLY COUSINS.



THE MOVIES GOT IT WRONG

WHEN IT COMES TO TWINS AND TRIPLETS, THE BIG SCREEN HAS DRAMATIZED TWIN TELEPATHY AND MADE IDENTICAL APPEARANCES TRENDY. IN REALITY, THERE'S MORE TO THESE SIBLINGS THAN THE PERSON WHO SHARED THEIR PRENATAL SPACE. NO MATTER THEIR AGES, UNIQUE CHALLENGES AND HISTORIES, THESE MULTIPLES ARE PROOF THAT THE SCIENCE OF TWINS IS MORE FASCINATING THAN HOLLYWOOD PORTRAYS. MORE IMPORTANTLY, EACH OF THEM IS DISTINCT FROM THE OTHER, NO MATTER HOW OFTEN THEY'RE CALLED BY THE WRONG NAME.



DOUBLE TROUBLE

Brian and Kevin Stoothoff, age 53, are identical twin brothers. Brian serves as the Assistant fire chief at the Ocala Fire Department, while Kevin works as a veterinarian. The two moved to Ocala with their parents after graduating high school, earned their AAs at the College of Central Florida and later graduated together from the University of Florida. Being together is just part of life for these twins.

“For the first 12 years of our lives, we had one bedroom that we shared. Having a twin gives you a constant companion to play with or fight with,” Brian says. “When we were very young, Mom and Dad would dress us exactly alike. Teachers couldn’t tell us apart. Today, I look back on some pictures when we were young and I have to think hard about who’s who.”

“My parents would ask who did it, and then we’d point at each other and we’d both get in trouble,” Kevin says of his double trouble childhood. “Half the time, they couldn’t tell who was who anyway.”

As for the twin connection made famous by Hollywood, Kevin reports something similar.

“I know as kids we felt each others’ emotions to a certain degree,” he explains. “I felt more of a bond with my brother. We relate to each other more than regular siblings might.”

Of course, the brotherly matching gets old eventually.

“At some point you start to rebel a little and dress differently,” Brian explains. “We got jackets one year, and Kevin got a Yankees jacket, so of course I had to get a Mets one. I think now that we’ve gotten older people who know us can tell us apart easier.” Kevin says that isn’t the case when strangers are involved.

“People thought I worked at the fire department, too. A lot of people don’t think about us being twins though—they either know us as two different people or think we’re the same one. People would see one of us and not recognize the woman we’re with, not realizing we’re twins. They probably thought we were cheating on our spouses,” he jokes.

Just because these guys are identical doesn’t mean they have interchangeable personas.

“I think there are similarities and differences, too. As with all siblings, one of us is probably a little more conservative than the other,” Brian says with a smile. Both brothers note their strong work ethics as a major commonality,

and Kevin added that although he is a vet and his brother is a paramedic, they both wound up in medical professions (as did their sister, a nurse).

Like many parents at the time, the Stoothoffs weren’t planning on multiples.

“I’m told my grandmother was a twin, but my parents weren’t expecting twins—that many years ago they had no way of determining multiple births. I was born first; my brother was born three minutes later, so I like to think I’m older but look younger,” says Brian with a smile.

The idea that multiple births run in the family is sibling legend. Fraternal twins can “run in the family” on the mother’s side alone if she inherits a gene for hyper ovulation, which is the tendency to release more than one egg when ovulating. This significantly increases the chances of conceiving twins.



BRIAN

KEVIN

BROTHER-SISTER BOND

Of course, twins don't have to be identical to be inseparable. Fraternal twins Jade and Chase Mallard, 11, just relocated to Citrus Springs with their parents, Jon and Angela, and sister, Charley, age 2. They're enjoying having each others' familiar faces around their new school according to Chase.

"We're new to this school, so we sit together at lunch," he explains. "We ride the bus, but we don't have the same seats so if no one is sitting by her, I'll go up and take it."

When asked if having a twin was fun or occasionally annoying, Jade giggles and says, "Both, but it's not fun if we go somewhere without each other." Chase says he enjoys playing and riding bikes with his sister. The bad part? "If I do something, she knows."

The Hollywood version of twintuition may be a farce, but the solid connection between these siblings is very real.

"I always hear 'you can't pick on my sister, only I can,'" says their father, who has appreciated their bond since day one.

"They keep each other company. They slept in the same crib when they were born—they held hands and always had to be touching each other," he says. "They had their own little language growing up. Now they teach each other, and that really helps their grades."

Jon makes a point of emphasizing their uniqueness, though.

"They're fraternal, so they're their own entities with their own ideas even though they are together all the time. Their personalities are totally different, but their caring quality is the same," Jon says. "She was reading books over my shoulder by two, and he was doing math better than me by then. Chase is a little bigger with brown hair and brown eyes, and Jade has blonde hair, blue eyes and is petite."

NOW YOU SEE IT...

BRETT AND HEATHER HAZEN also have three children: Corbin, 5, and fraternal twins Lilly and Logan, 2.

"If you had asked me if I ever thought I'd be pregnant with twins two times in a row I would have laughed. I never in a million years would have expected this," Heather recalls. That's right—Heather's son Corbin was a twin, too, until his sibling vanished.

Vanishing twin syndrome occurs when one of the fetuses disappears during pregnancy. Its tissue is absorbed either by the mother or its sibling.

"Some doctors call it vanishing twins; some call it a miscarriage," Heather explains. "We found out we were pregnant seven weeks along, then I went and had an ultrasound to confirm everything was OK because I was spotting."

At the time, she was unaware twins ran in her family, but doctors confirmed she was carrying two babies.

We went back a few weeks later, and they did another ultrasound. Both babies were there with two heartbeats and both were fine. I went back after vacation at 15 weeks and was feeling kind of

crampy. There was only one heartbeat and one baby at that point." After being transferred to Shands, the doctors and the Hazens started unraveling the mystery. "Basically, there were two placentas there, and Corbin absorbed some of the other sac, so he was born at 40 weeks at 11.5 pounds."

Later, Brett and Heather decided to grow their family again but never could have predicted what would happen next.

"Before I knew it, the same thing was happening, and I was spotting," she says. "The nurse said it was because my uterus was growing faster than normal. They monitored me more closely with that pregnancy and everything went well."

Lilly and Logan were born healthy, happy babies.

"They're night and day," Heather says. "Lilly knows she's the only girl and the princess of the house. She is a true girl; she whines at the appropriate times. Logan is a true boy. He runs through the house, throws things and climbs on everything."

"I wonder if it would have been a boy or a girl, would he or she and Corbin have looked alike. It was definitely hard for a little while, but you go on," Heather explains. As for caring for her kids these days, she quips "enjoy the ride because it definitely is one. You're not going to be prepared enough."

NOT QUITE THE SAME

IN THE LAST 20 YEARS, much of the genetic research on autism has focused on twins, as their identical DNA lets researchers examine external causes. Studies show that autism is likely linked with mutations in the genome, but because only 70 percent of identical twins share autistic traits, there must be some environmental factors at play for the other 30 percent. What could cause autism in one twin and not the other? Researchers suspect uneven chemical exposure or different levels of stress during pregnancy or birth.

Jessica Bishop, 28, has three sons. Six-year-old Robert has autism and so does his little brother, Caleb. Interestingly Caleb's twin brother Nickolas does not. The boys, age 4, are fraternal.

"Nicky is developing normally and has none of those issues," his mother says. "I tell people Caleb is more like a twin to my older son who also has autism."

Research shows that in identical twins, if one child has an autism spectrum disorder, the other will be affected 36-95% of the time. In fraternal twins, the other is affected about 0-31% of the time. These figures lead scientists to believe that autism is caused by a genetic component, but they won't know for some time.

"This is the first study to take a whole genome approach to studying epigenetic influences in twins who are genetically

identical but have different symptoms," says Alycia Halladay, Ph.D., senior director of environmental and clinical sciences at Autism Speaks. "These findings open the door to future discoveries in the role of epigenetics—in addition to genetics—in the development of autism symptoms."

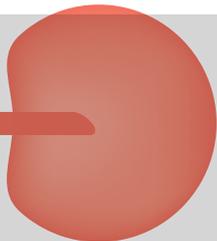
Because they develop at different rates, Jessica's sons lack the signature similarity often seen in twins.

"If you give Caleb a green bowl when he wants a blue one, it's like World War III. Nicky is much more lenient."

Of course, parenting any child with autism brings a unique set of challenges.

"Twins with autism aren't seen much. It's hard getting them to school and therapies and giving them all the resources available to them. A lot of people don't know much about autism, and they wonder why they're acting up."

Doctors believe studying identical twins will help them unravel the mystery of autism, whether it is caused by genetics or the environment, and perhaps a treatment in the distant future. For now, it's up to moms like Jessica to ensure her sons get the best care possible and provide insight to parents in her situation.



TREATING FOR TWINS

1 IN 4 IVF PATIENTS WILL HAVE TWINS, AND 1 IN 22 WILL HAVE TRIPLETS. STUDIES SHOW THAT THE RATE OF TWIN BIRTHS ROSE 76 PERCENT FROM 1980 TO 2009 DUE TO THE ADVANCES IN REPRODUCTIVE TECHNOLOGY.

WORDS FROM A MOMO MOM

Though we've all heard that births of multiples run in the family, they also crop up in the realm of fertility treatments and in vitro fertilization. In IVF treatments, multiple fertilized embryos are returned to the mother's uterus, increasing the likelihood that more than one baby develops. Doctors today recommend transferring only one or two embryos in order to prevent high-number births and the associated risks. When used too aggressively, ovulation-enhancing drugs can cause a woman to produce any number of eggs, leading anywhere from triplets to sextuplets.

Ocala resident Amanda Roos was a fertility patient when she conceived her triplets, identical girls, Iris and Felicity, and their fraternal brother, Corbin.

"As soon as I found out I was pregnant, I called the doctor because I was using Clomid, a fertility drug. It has a risk of less than 1 percent of having multiples," she recalled. "They don't do ultrasounds until 10 weeks, but I felt like something was going on and knew there had to be more than one. At 12 weeks,



Sources: nomotc.org, cdc.gov, americanpregnancy.org, uvtwinregistry.org, chw.org, twinsuk.co.uk, nytimes.com, twinstwice.com, autismspeaks.org

I had my first appointment at Shands, and they told me about the mono mono.”

Medical experts aren't sure why monochorionic monoamniotic (MoMo) twins form, but they do know *how*. If the fertilized embryo splits after eight or more days, the placentas and amniotic sacs will be shared. This occurs in only 1 percent of twins. MoMo is usually detected before 14 weeks when placental structures are most visible. Naturally, babies sharing space face a unique set of risks, including cord entanglement, compression, premature birth or Twin-to-Twin Transfusion Syndrome (TTTS). They may also grow at different rates due to unequal access to the blood supply.

“The first research we did was scary because it goes from MoMo to conjoined, and there is hardly any info on triplets,” Amanda recalls. With a 40 percent mortality rate for the babies, expectant mothers are often transferred to a perinatologist for the duration of the pregnancy. Most moms enter the hospital after week 28 to be watched constantly.

“The girls shared the sac and the placenta, so the chances of dying from a cord accident were extremely high,” Amanda said. “I was in the hospital for eight weeks to keep the fetal heart rate monitors on them. If they stopped, they would do an emergency

C-section. I did a lot of preparing for preemies since there was a chance they'd be delivered early. That was scary because it increased the chances of cerebral palsy and ventilation.” The girls shared their nutrition supply, so when labor came early at 30 weeks, one already had a half pound lead on her 2.5 pound sister.

After a six-week stay in the NICU, Amanda, her husband, Josh, and all three little ones returned home to start their next chapter. Now 16 months old, they're enjoying their tight-knit but diverse trio.

“They do sympathy cries when one isn't feeling well or is upset to comfort each other, but the girls are already their own individuals, even though they started out as the same person. It amazes me that they shared everything,” Amanda says of her kids. For any expecting MoMo mothers out there, Amanda suggests finding other couples in the same boat.

“Any multiple pregnancy is higher risk and different than a singleton pregnancy. It is unbelievably comforting to talk to someone who has the same thing going on. There is so much negative information on scary pregnancies and how likely you are to lose them. Talking to someone who has healthy babies from a similar pregnancy is refreshing.” *hl*