

THE ISSUES

FROM THE DESK OF MU EXTENSION
HUMAN DEVELOPMENT & FAMILY SCIENCE FIELD FACULTY



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WHAT'S NEW?

Rerouting: building new neural pathways

The awe and wonder of early brain development

Perspective taking: a lifelong skill for youth

Staying connected over 60

REROUTING: BUILDING NEW NEURAL PATHWAYS

BY KYLEIGH SULLIVAN

Much like our highway system has over time, created express lanes and bypasses, our brain develops connections among its different parts called neural pathways.

Once these pathways or connections are created the quicker and more often, they occur. For instance, if you play an instrument a lot of things are taking place at once requiring several parts of your brain to work together simultaneously. With practice you improve your skill because your brain's neural pathways have become more efficient like the bypasses for the highway. If we don't practice a skill or use information the pathways weaken in favor of others we use more frequently.



The process of building neural pathways occurs as children in the early years learn about the world. Overtime our pathways become part of our nature. For instance, when something stressful happens do I tend to think this is terrible and nothing goes right, or do I look at it as an opportunity? The process of building neural pathways stays with us through our entire lives. It's never too late to reroute our response patterns. All we need to do is practice the connections we want and let our neural pathways do the rest! If we are faced with stress, we can choose to handle it by accepting what we can't change and focusing on having a positive mindset our neural pathways will start to strengthen and eventually will become the efficient bypass! This concept also applies to learning new things. You're never too old to learn something new. It may take more time, but the ability to create or strengthen neural pathways remains.

Mather Institute: <https://www.matherinstitute.com/>

**"It's never too late
to reroute our
response."**

THE AWE AND WONDER OF EARLY BRAIN DEVELOPMENT

BY AMBER ALLEN

We all know the looks of awe and wonder when babies and toddlers are learning something new such as walking, trying a new food, or exploring the world around them. Children are born ready to develop their brain and learn skills to use throughout their life. From birth children's brains develop through their everyday experiences.

Research has shown a child's brain produces more than a million neural connections each second between birth and age three. The part of the brain that is used during early development is also responsible for storing information throughout our life. Early brain development is laying down the neural foundation for



lifelong brain development. The relationships, experiences, and environments in the early years have lasting impact on child's brain development.

Brain development is a lifelong process however, nurturing early year brain development is very important for later health and development. Exposure to stress and trauma can have long-term adverse effects on the child's brain. Understanding their needs and responding accordingly helps protect children's brains from stress. Adults can support healthy brain growth by speaking to, playing with, and caring for children. Early childhood brain development is strongly influenced by the child's experiences with other people and the world. From birth to age 5, a child's brain develops more than at any other time in life. Experiences in early life both positive and negative help shape how a child's brain develops. This time is the best opportunity for a child's brain to develop the connections they need to be healthy and successful adult in the future.

*References: <https://www.zerotothree.org/espanol/brain-development>
<https://www.zerotothree.org/resources/series/frequently-asked-questions-about-brain-development>
<https://www.cdc.gov/ncbddd/childdevelopment/early-brain-development.html#:~:text=Nurturing%20and%20responsive%20care%20for,support%20and%20the%20right%20resources.>*

PERSPECTIVE TAKING: A LIFELONG SKILL FOR YOUTH

BY MARY ENGRAM

If everyone stopped to consider what it might be like “to be in another person’s shoes”, the world would be a better place. Teaching youth the skill of “Perspective Taking” or the ability to see a situation in multiple ways not only can make the world a better place, but allows for new neural pathways to generate in a young developing brain. Mentally standing in someone else’s shoes requires reflection – an essential skill for problem solving and embracing differences. The social benefits include reduced conflicts and creating an inclusive peer community.



The connection between how the parts of the brain function and what that looks like in a realistic everyday situation can be a fascinating topic for students and a motivator to achieve higher level thinking. For example, in order to allow the “thinking” part of the brain to make the best decisions, one must practice directing information on to it. Repeated calm perspective taking creates a neural pathway in the brain that allows for better decision-making to become a habit. What does that look like for youth? When differences of opinion are honored and disagreement is respectful, this unstressed state of mind allows the amygdala (emotional brain) to stand down and puts the prefrontal cortex (thinking brain) in control. Over time a young person develops the ability to respond thoughtfully and make good choices.

Source: The MINDUP Curriculum: Brain-Focused Strategies for Learning-and Living. Scholastic, 2011

**"Mentally standing
in someone else's
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reflection."**

STAYING CONNECTED OVER 60

BY AMY BARTELS

“Keep in touch” is a phrase that may sound familiar to many, even cliché to some. But the concept of staying connected is important for our overall health and well-being, especially as we age. We all need connection with other people. Social interaction helps us to combat isolation and loneliness. Feeling disconnected or separated from others (whether real or perceived) can lead to increased feelings of despair and depression. While feeling connected gives us a sense of belonging and value.



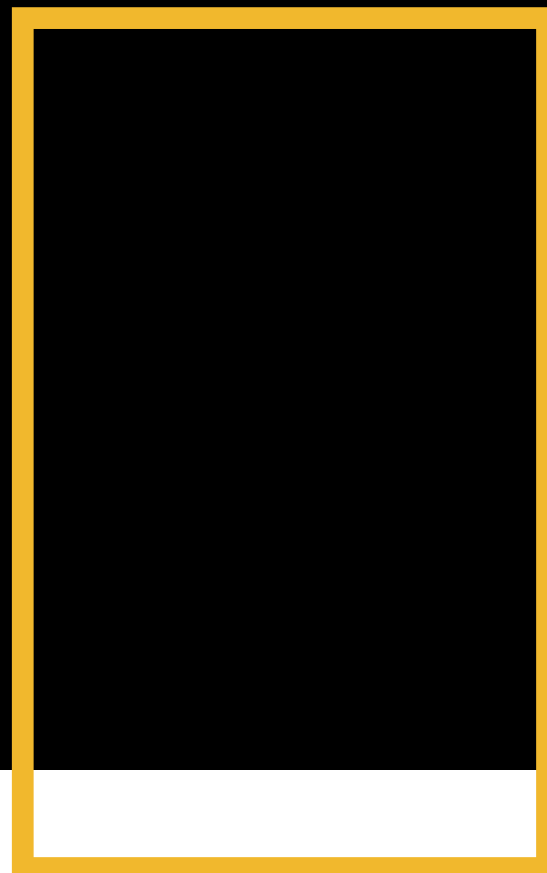
As we age, we may find that limited mobility, health restrictions, lack of access to activities or events, and reduced confidence can hinder our ability to remain socially connected. In the past six months, we have seen dramatic changes in how we live our daily life, and the ability to get together at our own discretion has been challenged. Advancements in technology have allowed many of us to better navigate this “new normal”, whether attending an online meeting or ordering groceries.

Interestingly, a 2017 Pew Research Center project indicates that adults age 50 and older are the fastest growing demographic on the internet. Texts, emails, social media, even video chats, have become second nature for many seniors. Older adults are embracing technology as a way to stay in touch with family and friends. If you are hesitant on how to get started, there are trusted resources that can provide guidance and training.

Check out your local aging resources as well as AARP and National Council for Aging Care for more information and support in learning to navigate these new technologies.

MU EXTENSION: FAMILY AND HOME

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