AGE-OLD LEARNING TRICKS
WE CAN STAY MENTALLY SHARP THROUGHOUT OUR LIVES
OUR AGING BRAINS MAY BENEFIT FROM AWARENESS AND EXTRA CARE

Published: March 31, 1995

SUSAN CHURCH NEWS-SENTINEL CORRESPONDENT

Mary Francis Wren remembers what it was like to step back into the classroom after 30 years.

In her first semester at the University of Tennessee, the 50-year-old Knoxville woman took an introduction to geography class that required her to memorize 100 places on the globe. Deltas and rivers. Mountains and plains. Oceans of facts. And she was drowning in them. "I was absolutely scared to death," Wren said. Could she compete academically against 20-year-olds? Or was she too old to make the grade?

Wren's fears were unfounded. While some of her fellow students were busy ogling the boys in the next desk, Wren buckled down. She made flash cards. She drilled. And she remembered plenty.

After three years, she's close to finishing her UT degree in cultural anthropology with a strong B average while holding down a job and taking care of her family. Don't ask Wren if you can teach an old dog new tricks. If you think you can't, you're barking up the wrong tree.

Most people stay mentally sharp throughout their lives - and, like Wren, are able to learn new material with relative ease.

But while our minds don't turn to mush as we get older, they do change! Intelligence, particularly the ability to learn new things, declines subtly with age. Luckily, the changes frequently occur so slowly in healthy adults that they go unnoticed, and failings in one area of life may be compensated for by strengths in another.

Scientists who study learning and memory divide intelligence into two broad abilities - crystallized and fluid intelligence.

Crystallized abilities are a knack for well-learned skills and facts - driving a car, for example, or knowing who was president of the States during the Civil War, having a rich vocabulary, or even the ability to execute your much-honed golf swing.

Fluid intelligence is the ability to deal with new, not previously learned, information. This kind of intelligence is most vulnerable to

A secretary for 30 years who sits down at her trusty typewriter is drawing upon crystallized intelligence. The same secretary who onto the information superhighway for the first time taps into fluid intelligence. And her ability to learn the computer may be hindered
past associations with the typewriter keyboard.

The good news, said psychologist Alberta S. Gilinsky of the University of Bridgeport, is that crystallized intelligence continues to grow until about age 45, then shows gradual declines beginning around 80 years old. But fluid intelligence is strongest in our younger years and begins to wear in the 30s, said psychologist Thomas Hess with North Carolina State University.

To understand why memory and intelligence change, consider the computer. As we age, scientists theorize, our brain's memory gets "filled," just as a disk on a computer gets filled with information.

The brain's ability to process new information also slows down with age, said gerontological psychologist Kathryn Riley of the University of Kentucky. That may leave older people feeling that the world is whirling by at a dizzying rate.

"I've had a number of people tell me that it feels to them like their favorite TV shows are going by too fast or that people around them are talking too quickly," Riley said. Hearing loss may be the culprit, but the brain's decreasing ability to process new information may be the reason, she said.

Don't discount distractability. Increasing age also means increasing responsibilities, which weigh heavily on minds and leave less attention for new information.

"One theory says older adults are less likely to be consciously engaged in learning," Hess explained. "They're less likely to pay attention to the things they're learning, and that lack of attention interferes with the ability to store information in the brain."

That's not just a problem for older adults, however. People who don't pay attention don't learn - no matter what their age. Hess reports studies in which older adults and young adults were asked to do two tasks at once - learn the definition of a list of words, for example, while also keeping track of a series of odd numbers. Under such conditions, even a 22-year-old can't do it all and begins to look forgetful.

What can older adults do to remain sharp? The best bet is to exercise the mind.

"Many people think they're too old to take up a new hobby, but that's exactly the thing to do," Riley said.

Stimulate the brain. Read a book. Learn bridge. Take up golf. "Don't expect to go on the PGA Tour," Riley cautioned, "but it's a fact that you can't teach an old dog new tricks. It may take a little longer, but there's no reason you can't learn."

Clean living, a healthy diet and intellectual pursuits may also have something to do with it. Riley points to her current study involving a large group of Catholic nuns, at least 75 years old, many of whom have continued to lead vital lives. "They've been so active for so long they just don't let things rest, at least not mentally," Riley said. They may also have slightly lower rates of Alzheimer's disease than the general public, Riley added.

Rehearsing information also gives memory a boost. When meeting someone new, for example, use their name a couple times in the conversation or create meaningful associations. You might think of "Mr. Green" as a colorful character or that "Mrs. Lawrence" argues so much, she should have been a lawyer.

And don't forget that wisdom and experience are two great assets. When learning something new, try relating it to material you already know.

That's a lesson Carolyn Moore, 52, learned last August when she graduated from UT with a history degree.

The algebra class she had to take "scared me to death," she said, until she started to relate it to mortgage payments, car loans and dozens of other details of daily life that involve math.

She used the same technique in her history classes.

"People my age bring an insight to the material the younger students don't have," Moore explained. "Like the Vietnam War - that was textbook history to the younger students. That wasn't a movie to me. That was real."

Her encounter with learning later in life left her hungry for more; she's now getting a master's degree in library and information science.

"My age doesn't matter," Moore said. "I come at the material from a different direction than the younger students, but I get there just the same."