



Georgia Scott, 99, center, during a game of bridge at her retirement community. “It’s what keeps us going,” she says. Credit Sandy Huffaker for The New York Times

LAGUNA WOODS, Calif. — The ladies in the card room are playing bridge, and at their age the game is no hobby. It is a way of life, a daily comfort and challenge, the last communal campfire before all goes dark.

“We play for blood,” says Ruth Cummins, 92, before taking a sip of Red Bull at a recent game.

“It’s what keeps us going,” adds Georgia Scott, 99. “It’s where our closest friends are.”

In recent years scientists have become intensely interested in what could be called a super memory club — the fewer than one in 200 of us who, like Ms. Scott and Ms. Cummins, have lived past 90 without a trace of dementia. It is a group that, for the first time, is large enough to provide a glimpse into the lucid brain at the furthest reach of human life, and to help researchers tease apart what, exactly, is essential in preserving mental sharpness to the end.

“These are the most successful agers on earth, and they’re only just beginning to teach us what’s important, in their genes, in their routines, in their lives,” said Dr. Claudia Kawas, a neurologist at the University of California, Irvine. “We think, for example, that it’s very important to use your brain, to keep challenging your mind, but all mental activities may not be equal. We’re seeing some evidence that a social component may be crucial.”

Laguna Woods Village, a sprawling retirement community of 20,000 south of Los Angeles, is at the center of the world’s largest decades-long study of health and mental acuity in the elderly. Begun by University of Southern California researchers in 1981 and called the 90+ Study, it has included more than 14,000 people aged 65 and older, and more than 1,000 aged 90 or older.

video

[The Super Memory Club MAY 21, 2009](#)

Such studies can take years to bear fruit, and the results of this study are starting to alter the way scientists understand the aging brain. The evidence suggests that people who spend long stretches of their days, three hours and more, engrossed in some mental activities like cards may be at reduced risk of developing dementia. Researchers are trying to tease apart cause from effect: Are they active because they are sharp, or sharp because they are active?

The researchers have also demonstrated that the percentage of people with dementia after 90 does not plateau or taper off, as some experts had suspected. It continues to increase, so that for the one in 600 people who make it to 95, nearly 40 percent of the men and 60 percent of the women qualify for a diagnosis of dementia.

At the same time, findings from this and other continuing studies of the very old have provided hints that some genes may help people remain lucid even with brains that show all the biological ravages of Alzheimer’s disease. In the 90+ Study here, now a joint project run by U.S.C. and the University of California, Irvine, researchers regularly run genetic tests, test residents’ memory, track their activities, take blood samples, and in some cases do postmortem analyses of their brains. Researchers at Irvine maintain a brain bank of more than 100 specimens.

To move into the gated Laguna Woods Village, a tidy array of bungalows and condominiums that blends easily into southern Orange County, people must meet several requirements, one of which is that they do not need full-time care. Their minds are sharp when they arrive, whether they are 65 or 95.

They begin a new life here. Make new friends. Perhaps connect with new romantic partners. Try new activities, at one of the community's fitness centers; or new hobbies, in the more than 400 residents' clubs. They are as busy as arriving freshmen at a new campus, with one large difference: they are less interested in the future, or in the past.

"We live for the day," said Dr. Leon Manheimer, a longtime resident who is in his 90s.

Yet it is precisely that ability to form new memories of the day, the present, that usually goes first in dementia cases, studies in Laguna Woods and elsewhere have found.

The very old who live among their peers know this intimately, and have developed their own expertise, their own laboratory. They diagnose each other, based on careful observation. And they have learned to distinguish among different kinds of memory loss, which are manageable and which ominous.

A Seat at the Table

Here at Laguna Woods, many residents make such delicate calculations in one place: the bridge table.

Contract bridge requires a strong memory. It involves four players, paired off, and each player must read his or her partner's strategy by closely following what is played. Good players remember every card played and its significance for the team. Forget a card, or fall behind, and it can cost the team — and the social connection — dearly.

"When a partner starts to slip, you can't trust them," said Julie Davis, 89, a regular player living in Laguna Woods. "That's what it comes down to. It's terrible to say it that way, and worse to watch it happen. But other players get very annoyed. You can't help yourself."

At the Friday afternoon bridge game, Ms. Cummins and Ms. Scott sit with two other players, both women in their 90s. Gossip flows freely between hands, about residents whose talk is bigger than their game, about a 100-year-old man who collapsed and died that week in an exercise class.

But the women are all business during play.

“What was that you played, a spade was it?” a partner asks Ms. Cummins.

“Yes, a spade,” says Ms. Cummins, with some irritation. “It was a spade.”

Later, the partner stares uncertainly at the cards on the table. “Is that —”

“We played that trick already,” Ms. Cummins says. “You’re a trick behind.”

Most regular players at Laguna Woods know of at least one player who, embarrassed by lapses, bowed out of the regular game. “A friend of mine, a very good player, when she thought she couldn’t keep up, she automatically dropped out,” Ms. Cummins said. “That’s usually what happens.”