

# Effects of aging on the immune system from the LifeSpan Center

The immune system is the body's defense against foreign or dangerous invaders. **Such invaders include:**

- \* Microorganisms (commonly called germs, such as bacteria, viruses, and fungi)
- \* Parasites (such as worms)
- \* Cancer cells
- \* Transplanted organs and tissues

The immune system changes throughout life. At birth, acquired (specific)

immunity is not fully developed. However, newborns have some antibodies, which crossed the placenta from the mother during pregnancy. These antibodies protect newborns against infections until their own immune system fully develops. Breast-fed newborns also receive antibodies from the mother in breast milk.

**As people age, the immune system becomes less effective in the following**

**ways:**

- \* The immune system becomes less able to distinguish self from non-self (that is, to identify foreign antigens). As a result, autoimmune disorders become more common.
- \* Macrophages (which ingest bacteria and other foreign cells) destroy bacteria, cancer cells, and other antigens more slowly. This slowdown may be one reason that cancer is more com-

mon among older people.

- \* T cells (which remember antigens they have previously encountered) respond less quickly to the antigens.
- \* There are fewer white blood cells capable of responding to new antigens. Thus, when older people encounter a new antigen, the body is less able to remember and defend against it.
- \* Older people have smaller amounts of complement proteins and do not

produce as many of these proteins as younger people do in response to bacterial infections.

- \* Although the amount of antibody produced in response to an antigen remains about the same overall, the antibodies become less able to attach to the antigen. This change may partly explain why pneumonia, influenza, infective endocarditis, and tetanus are more common among older people and re-

sult in death more often. These changes may also partly explain why vaccines are less effective in older people and thus why it is important for older people to get booster shots (which are available for some vaccines).

These changes in immune function may contribute to the greater susceptibility of older people to some infections and cancers.

# Senate committee prioritizes mental health issues amid pandemic

**Sen. Laura Fine named chair of Behavioral and Mental Health Committee**

**By Grace Barbic  
Capitol News Illinois**

Leadership in the Illinois Senate has formed a new committee to focus on mental health issues in the current General Assembly as the COVID-19 pandemic continues to significantly alter everyday life.

more essential that we really address these problems head on," said Sen. Laura Fine, D-Glenview.

Senate President Don Harmon, D-Oak Park, named Fine as chair of the newly created Senate Committee for Behavioral and Mental Health. When Fine joined the Senate last year, she approached Harmon about establishing a committee focused specifically on mental health and behavioral issues.

Her advocacy on the is-



sue was nothing new. Prior to joining the Senate, Fine served in the state House of Representatives for the 17th district from 2013

didn't cover mental health, despite her husband's urgent need for care.

"We need to make sure that when you're looking for these services, you have coverage for these services," Fine said. "Because the last thing that enters your mind is 'this is the health that could save my life, but I can't afford it.' And just knowing from our experience, that happens to a lot of people and we can't let that happen."

Previously, most mental health-related bills heard in the Senate would go to the Human Services Committee, but Fine said that committee was too broad and she wanted to chair one with a more focused approach to mental health.

She said she hopes the new committee, the first of its kind for the Senate, will lead the passage of groundbreaking legislation.

John Patterson, spokesman for Harmon, acknowledged Fine's dedication to bettering mental health services in the state.

"The Senate believes it deserves a forum for debate and a launching pad for progress," Patterson said on behalf of Harmon. "The Senate President looks forward to the great work Sen. Fine and the committee will do."

The House Committee for Addiction and Mental Health has been working for about four years now with Conroy as its Chair. Conroy saw a need for such a committee when she witnessed the intersectionality of men-

tal health and addiction issues her constituents were facing as the opioid and heroin crisis became prevalent in her district and the state.

As vice chair of that committee, Fine worked closely with Conroy, passing legislation related to mental health parity to ensure that mental health issues would receive the same protections under law as other health issues when it comes to insurance coverage.

The new law, enacted in the state in 2015, includes important provisions to extend and clarify coverage, educate consumers about their rights, require certain minimum treatment benefits and improve enforcement of the law, according to Get Covered Illinois.

"We started that fight together," Conroy said. "So now that she's able to actually have a committee devoted to that in the Senate...it's great news for our state, for our constituents."

Conroy said their work with mental health parity will continue into the 102nd General Assembly, and she is looking forward to the working relationship between the two committees.

"When you're able to take on big issues that affect mental health and addiction and you can educate both chambers at the same time, it helps you to expedite that fight and issues much faster than having to go from one chamber to the next," Conroy said.

Fine said she plans to file a number of mental health-related bills in the new General Assembly, focusing on medical necessity, addressing the need for psychiatrists in mental health deserts and increasing telehealth availability for those seeking safe ways to get help during the pandemic.

"I feel like if we could save one person's life with this committee, that's huge," Fine said. "My goal with this committee is to take away that stigma, so everybody who needs help can seek it and do so in an affordable and accessible way. I'm really excited Illinois is taking mental health seriously."

*Capitol News Illinois is a nonprofit, nonpartisan news service covering state government and distributed to more than 400 newspapers statewide. It is funded primarily by the Illinois Press Foundation and the Robert R. McCormick Foundation.*

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