

# Insecure relationships may drain immune system

By Amy Norton Tue Feb 13, 12:21 PM ET

Feeling insecure in close relationships with others may take a toll on the immune system, preliminary research suggests.

In a study of 61 healthy women, Italian researchers found that those who had difficulty establishing close, trusting relationships showed signs of weaker immune function. Specifically, lab experiments showed that the women's "natural killer" immune system cells were less lethal compared with those from other study participants.

Whether this means they're more susceptible to disease is unknown, and for now the answer to that question is a "very prudent maybe," Dr. Angelo Picardi, the study's lead author, told Reuters Health.

The findings, published in the journal *Psychosomatic Medicine*, are in line with research showing that chronic stress can impair immunity, and the extent of the impact may depend on how an individual perceives and responds to stress. In short, personality traits may affect immune function.

The researchers looked at the trait known as "attachment insecurity," characterized by difficulty trusting and depending on others, feeling uncomfortable with emotional intimacy or worrying about being abandoned by loved ones.

A person's "attachment style" forms in childhood, based on a child's relationship with his or her parents. It affects and is further shaped by romantic relationships later in life, explained Picardi, a researcher at the Italian National Institute of Health in Rome.

So attachment style can be seen as a fairly stable trait that affects a person's response to stressful events, according to Picardi. Attachment insecurity, he explained, affects people's ability to regulate their own emotions, including how they perceive and deal with stress -- which may affect the body's physiological response to stress.

For their study, Picardi and his colleagues recruited a random sample of female nurses, who were younger than 60 years old, had no chronic illnesses and no history of major psychiatric disorders.

The researchers measured the women's attachment style using standard questionnaires and collected blood samples to study the function of their immune system cells.

In general, the study found, women with greater attachment insecurity had lower activity in their natural killer cells, key defenders against illness.

Picardi noted that in other research, his team has found associations between insecure attachment and certain skin diseases related to immune dysfunction. These include plaque

psoriasis, a condition where scaly patches form on the skin, and alopecia areata, an autoimmune disorder that causes hair loss.

"However," he said, "it should be underscored that a causal link between insecure attachment, impaired immunity, and poorer health is far away from being proved."

It's possible that relationship insecurity alone is not enough to make someone vulnerable to illness, according to Picardi, but in conjunction with other factors -- like older age or chronic disease -- it might be enough to worsen a person's health.

"Clearly," he said, "a lot more research is needed to elucidate these issues."

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## ORIGINAL ARTICLES

# Attachment Security and Immunity in Healthy Women

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**Background:** Attachment security is associated with health and possibly autonomic and endocrine reactivity to stress, however the relationship between attachment style and immune function has not yet been investigated.

**Methods:** A random sample of 61 female nurses provided a blood sample and completed the Perceived Stress Scale, the Multidimensional Scale of Perceived Social Support, the 20-item Toronto Alexithymia Scale, and the Experiences in Close Relationships questionnaire. Immune measures included immunophenotypic analysis, lymphocyte proliferative response to Phytohemagglutinin, and NK cell cytotoxicity (NKCC). Statistical analysis focused on the relationship between attachment-related anxiety or

avoidance and immune measures. Multiple regression was used to control for perceived stress and support, alexithymia, health-related behaviors possibly influencing immunity, and use of anti-inflammatory drugs, tobacco or alcohol.

**Results:** Attachment-related anxiety was not associated with any immune parameter. Attachment-related avoidance was associated with lower NKCC. This association was independent from the number of circulating NK cells, which suggests a change in cell functionality. Perceived stress was also associated with lower NKCC.

**Conclusions:** This study suggests a link between attachment security and immunity. While our findings should be interpreted with great caution and need replication, they are consistent with previous work suggesting that insecure attachment may be a risk factor for health and may relate to biological processes relevant to health.

**Key Words:** attachment • stress • support • emotion regulation • immunity

**Abbreviations:** **PSS** = Perceived Stress Scale; **MSPSS** = Multidimensional Scale of Perceived Social Support; **TAS-20** = 20-item Toronto Alexithymia Scale; **ECR** = Experiences in Close Relationships questionnaire; **PHA** = Phytohemagglutinin; **NKCC** = Natural Killer Cell Cytotoxicity; **BMI** = body mass index.