

Stress may be a gender issue

By Elizabeth Norton Lasley, Dana Foundation

Some stress-related disorders, such as depression and post-traumatic stress disorder, are twice as common in women as in men. A new study suggests that the difference may not be merely a matter of personality.

In certain cells in the female brain, the receptors for a key stress hormone, corticotropin releasing factor (CRF), respond differently to increases in the hormone's levels—making this part of the brain more sensitive to stress and less able to adapt. The finding provides a biochemical basis for the prevalence of stress-related illness in women.

Rita Valentino, Debra Bangasser, and colleagues at The Children's Hospital of Philadelphia, knew from previous research in female rats that neurons in a region called the locus ceruleus respond to lower levels of CRF than are needed for activation in male brains. The locus ceruleus is a storehouse of norepinephrine, one of the chief chemical messengers in the fight-or-flight response.

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