

Asthma by gender: two different diseases?

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Asthma is twice as common in boys as girls in the pediatric population. However, by the end of adolescence, women have a greater prevalence of asthma than men. Boys often outgrow their asthma in adolescence and many girls have the first onset of asthma after puberty. Women with asthma are twice as likely to be seen in the emergency rooms for asthma and up to three times as likely to be admitted to hospital with asthma than men. Analysis of a community survey demonstrated that asthmatic women are more likely to be on the correct therapies, know more about asthma and their therapies and be pleased with their physician's care, and yet have more disease impact and unscheduled visits to their physicians and acute care settings than men with asthma. There is increasing evidence that differences in asthma morbidity by gender may be biologically driven. Contributing factors include genetic differences, particularly in the beta2 adrenergic receptors, physiologic differences in airway size and pulmonary mechanics, hormone differences, pharmacologic differences including steroid responsiveness and bronchodilator resistance and susceptibility to environmental factors. Understanding biological gender differences in asthma will be as important as understanding psychosocial differences if we are to make further progress in preventing and managing asthma in both men and women.