The airway smooth muscle (ASM) plays an indispensable role in airway structure and function. Dysfunction in ASM plays a pivotal role in the pathogenesis of respiratory disorders. ASM hyperactivation is a hallmark of respiratory diseases such as chronic obstructive pulmonary disease (COPD), asthma, and cystic fibrosis (CF). ASM dysfunction is a consequence of increased ASM mass and stiffness, which contribute to airway obstruction and airflow limitation. This review summarizes the key pathophysiological mechanisms that underlie ASM hyperactivity in health and disease and highlights novel therapeutic strategies for its attenuation.

**ASM Dysfunction and Pathogenesis**

ASM consists of specialized muscle cells that line the walls of the airways. These cells are responsible for maintaining the integrity of the airway wall, contributing to airway patency, and regulating airway tone. ASM hyperactivity is associated with increased ASM mass and stiffness, which lead to airway obstruction and airflow limitation. ASM hyperactivity is a hallmark of respiratory diseases such as COPD and asthma. ASM hyperactivity is mediated by increased ASM mass and stiffness, which contribute to airway obstruction and airflow limitation.

**ASM Mass and Stiffness**

ASM mass and stiffness are increased in respiratory diseases such as COPD and asthma. Increased ASM mass and stiffness contribute to airway obstruction and airflow limitation. ASM hyperactivity is mediated by increased ASM mass and stiffness, which contribute to airway obstruction and airflow limitation.

**ASM Hyperactivity**

ASM hyperactivity is a hallmark of respiratory diseases such as COPD and asthma. ASM hyperactivity is mediated by increased ASM mass and stiffness, which contribute to airway obstruction and airflow limitation. ASM hyperactivity is mediated by increased ASM mass and stiffness, which contribute to airway obstruction and airflow limitation.

**ASM Hyperactivity in COPD**

ASM hyperactivity is a hallmark of COPD. ASM hyperactivity is mediated by increased ASM mass and stiffness, which contribute to airway obstruction and airflow limitation. ASM hyperactivity is mediated by increased ASM mass and stiffness, which contribute to airway obstruction and airflow limitation.

**ASM Hyperactivity in Asthma**

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**ASM Hyperactivity in CF**

ASM hyperactivity is a hallmark of CF. ASM hyperactivity is mediated by increased ASM mass and stiffness, which contribute to airway obstruction and airflow limitation. ASM hyperactivity is mediated by increased ASM mass and stiffness, which contribute to airway obstruction and airflow limitation.

**ASM Hyperactivity in Other Respiratory Disorders**

ASM hyperactivity is a hallmark of other respiratory disorders such as chronic bronchitis, bronchiectasis, and interstitial lung disease. ASM hyperactivity is mediated by increased ASM mass and stiffness, which contribute to airway obstruction and airflow limitation. ASM hyperactivity is mediated by increased ASM mass and stiffness, which contribute to airway obstruction and airflow limitation.

**ASM Hyperactivity and Therapeutic Strategies**

ASM hyperactivity is a hallmark of respiratory disorders. ASM hyperactivity is mediated by increased ASM mass and stiffness, which contribute to airway obstruction and airflow limitation. ASM hyperactivity is mediated by increased ASM mass and stiffness, which contribute to airway obstruction and airflow limitation.

**ASM Hyperactivity and Therapeutic Strategies**

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