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Notes

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Exercise-Induced Asthma

ASTHMA, A DISEASE of the airways and lungs, is characterized by recurring periods of breathing difficulty. During an asthma attack, the airways become inflamed, producing excess mucus and becoming swollen. The small muscles in the airways contract, causing the passages to narrow (a condition called bronchoconstriction or bronchospasm). Asthma attacks range in severity from very mild to life-threatening. Various medications can almost always reverse an asthma attack; nevertheless, every year, some people, including athletes, die from suffocation during an asthma attack.

No one knows exactly why people develop asthma and become sensitive to the substances and conditions that trigger bronchoconstriction. Asthma prevalence has risen dramatically in the past 20 years, and many researchers blame chemicals found in outdoor and indoor air pollution.

Understanding exercise-induced asthma

The term exercise-induced asthma commonly refers to bronchoconstriction with exercise in people with or without chronic asthma,³ although the two conditions may be somewhat different.² About 90 percent of people with chronic asthma find that exercise triggers asthma attacks. But about 10 percent of people with normal lung function at rest experience bronchoconstriction only during or following exercise. The rate of exercise-induced asthma in athletes appears to be even higher, from 11 to 50 percent.² One study examined exercise-induced bronchoconstriction (EIB) in 212 members of an urban fitness center, and found that 19 percent had EIB, according to measures of respiratory function.¹ (None of the subjects had a known history of asthma at the time of the study.)

Why is the EIB rate higher in athletes? Researchers are not sure. Some suspect that large volumes of exercise, especially in cold air, may somehow lead to hyperreactive airways. Or perhaps EIB is simply diagnosed more frequently in athletes because they exercise. In other words, sedentary people may not experience EIB since they don't exercise!

When to suspect EIB

The most common symptoms of EIB, which may be experienced either during or after exercise, include the following:



- Shortness of breath — clients may still feel breathless up to 10 minutes after exercise

- Chest tightness
- Excess mucus production during exercise

- Wheezing — a whistling or rasping sound during breathing

- Cough, experienced as a need to clear the airways

Other symptoms may also indicate EIB:

- Fatigue with exercise — feeling out of shape at workloads that should not elicit such fatigue

- Lower performance than would be expected with current training levels

- Sore throat with exercise

- Headache

- Stomach cramps

Clients without chronic asthma often fail to suspect that

their symptoms indicate EIB. Most simply interpret their breathlessness as an indication that they are “out of shape” or exercising too intensely. If you suspect EIB in your clients, encourage them to see their healthcare providers.

Make sure clients are prepared

Clients with chronic asthma usually anticipate having breathing difficulties with exercise, and are usually well-prepared with their rescue inhalers and asthma action plan. Unless they are newly diagnosed, they are probably quite adept at recognizing the onset of asthma symptoms, and will self-medicate effectively. If not, exercisers should be referred immediately to their healthcare providers for medication to better control asthma symptoms. **FM**

REFERENCES

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