Dance/USA

Task Force on Dancer Health

Relative Energy Deficiency in Sport (REDs)

Low energy availability (LEA) occurs when an athlete's nutritional intake does not match the level of energy required for training, and leaves the body without enough energy for basic daily functions. This imbalance often results from underfueling, whether intentional or unintentional, or excessive training. Relative energy deficiency in sport (REDs), is the result of chronic LEA. It is a serious syndrome that negatively affects both physical health and mental performance. The purpose of this paper is to help dancers understand the risks of relative energy deficiency in dance, its symptoms, and ways to manage it so they can stay healthy and perform their best.

In REDs, there are hormonal changes in the body from chronic LEA, leading to different health and performance effects. Some athletes may feel more tired, more depressed than usual, or get sick more often. Bones are more prone to injuries and may have slower healing. Female athletes can lose their period, and male athletes may have decreased sex drive. Digestive issues can also develop. When this occurs, it makes it even more difficult to normalize eating, which can contribute to a cycle of underfueling, feeling unwell, and experiencing injuries. Other signs include mood swings, trouble focusing, poor sleep, slower heart rate, frequent illnesses, and decreased strength or endurance. All these happen because the body is trying to conserve energy when it isn't getting enough from food.

Dancers may be at higher risk for LEA or REDs because, traditionally, the dance culture has focused on appearance, body shape, and being thin. Some dancers might intentionally eat less because they feel pressure to look a certain way, even if they don't mean to harm themselves. One study found that dancers have a three times higher risk of eating disorders compared to non-dancers. Some dancers experience low energy availability unintentionally. Some dancers may not realize how much energy their bodies need due to the intense demands of their training and variable class/rehearsal schedule. Many dancers rehearse for more than 30 hours a week, significantly increasing their energy needs. Because of these unique risk factors in the dance world, there is now a separate condition described in the literature called relative energy deficiency in dance (RED-D). Signs of RED-D are often the same as those seen with REDs. Specifically, some of the symptoms that dancers experience with RED-D are not being able to dance as well as usual, getting injured more often, and/or not growing or developing normally.

Injuries that commonly occur in dancers associated with RED-D are overuse bone stress injuries or stress fractures. Your doctor may order certain blood tests or a bone density test to check the health of your bones to help make the diagnosis of RED-D. Once diagnosed, increasing nutritional intake and restoring energy balance are the primary goals of RED-D management. RED-D can be treated by eating more of the right foods at the right times, and sometimes resting or cutting back on training to help the body recover. It's important for dancers with RED-D to

work with a team of professionals, including a physician who specializes in sports or dance medicine, a dietitian, a mental health counselor, and their school or company management. With support, dancers can return to full health and continue doing what they love.

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Disclaimer: The information on Relative Energy Deficiency in Sport (REDs) contained in this paper is intended to help guide and inform the dancer. It is not meant to take the place of the advice of a medical professional. This information is provided by Dance/USA Task Force on Dancer Health.

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