

Muscular variation and muscles you may not have heard of

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In the history of muscle research, muscle abnormalities and variations have also been documented. Muscle variation in the human body is a fascinating subject because, while most people share the same general muscle anatomy, individual differences exist. These variations can be structural, functional, or developmental.

This variation is often asymptomatic. It is mainly related to heredity, i.e., genetic and epigenetic factors, age, and gender, and sometimes affects athletic performance or increases injury risk. The variation may be clinically relevant, for example, in orthopedic surgery, imaging, diagnosis, and physiotherapy.

Some anatomical variations are considered quite common, while others are considered rare, but are not naturally defined as pathological. Most muscle variations go unnoticed and are sometimes discovered by chance. Some may be clinically identifiable as local swelling; some may cause compression of adjacent neurovascular structures; some are identifiable by imaging such as sonography, during dissection, or surgery. Most variations are found in the muscles of the extremities.

This article presents the names of the prominent researchers who have found muscular abnormalities, discusses the importance of recognizing muscular anatomical variation, understanding the anatomical abnormalities or variations that are subject to

biological laws, and provides examples of muscular anatomical variation, its significance, and clinical implications.

At the end of the article, a table is presented showing the common anatomical abnormalities in humans and their functional and/or clinical significance.

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