

The Figure in Motion

How the body distributes weight, shifts balance, and coordinates movement — the principles that make drawn figures feel physically alive.

BEGINNER

When a figure is standing on one leg, the pelvis tilts — the hip on the weight-bearing side rises and the other drops. The shoulder on the opposite side compensates by dropping, and the spine curves slightly. This is contrapposto — the classical pose that every sculptor from ancient Greece onward has used to make standing figures feel alive rather than stiff. When a figure walks, the arms swing opposite to the legs — left arm forward with right leg, right arm with left. These are not arbitrary conventions but physical necessities of balance. Understanding the mechanics of weight and balance is what allows you to judge whether a posed figure would actually stand up in real life.

HOBBYIST

The center of gravity is the key concept for figures in motion. A figure in stable balance has its center of gravity over its base of support (usually the feet). A figure about to fall does not. Figures running, jumping, throwing, or catching are momentarily unbalanced — their center of gravity has moved outside the base of support and gravity is pulling them in a direction that the next moment of motion will correct. Drawing figures in these transitional, momentarily unbalanced states is what creates the feeling of motion.

PROFESSIONAL

Animation is fundamentally the study of the figure in motion. The 12 principles of animation developed by Disney (squash and stretch, anticipation, follow-through, overlapping action, etc.) are all descriptions of how physical motion works and how to exaggerate it for expressive effect. Character animators spend careers studying and exaggerating the physical principles of motion to create characters that feel alive and physically grounded even when doing physically impossible things. Understanding motion means you can draw a running figure convincingly without reference — because you understand the sequence of positions a running body passes through.