

Figure 6: Hierarchical organization of form. The molecular structure at different magnification levels creates a different micro-state and organization that produces a different form. The final form depends on the organization of these molecules and not the original shape of the molecules. In this example, collagen, one of the main structural proteins in our body, shows different levels of organization from a collagen chain to its grouping into a triple helix, which is packed to form a collagen microfibril which in turn is organized to make fibrils. Multiple fibrils form a bundle that can be organized into packs called lamellae. These building blocks can be used to produce different shapes, for example, trabecular or compact bone.

