Bone marrow

Bone marrow is the flexible tissue in the interior of bones.

In humans, red blood cells are produced by cores of bone marrow in the heads of long bones in a process known as hematopoiesis.

On average, bone marrow constitutes 4% of the total body mass of humans; in an adult having 65 kilograms of mass (143 lbs), bone marrow typically accounts for approximately 2.6 kilograms (5.7 lb). The hematopoietic component of bone marrow produces approximately 500 billion blood cells per day, which use the bone marrow vasculature as a conduit to the body's systemic circulation.

Bone marrow is also a key component of the lymphatic system, producing the lymphocytes that support the body's immune system.

Bone marrow transplants can be conducted to treat severe diseases of the bone marrow, including certain forms of cancer such as leukemia. Additionally, bone marrow stem cells have been successfully transformed into functional neural cells, and can also potentially be used to treat illnesses such as inflammatory bowel disease.

see Bone Marrow Stromal Cell