

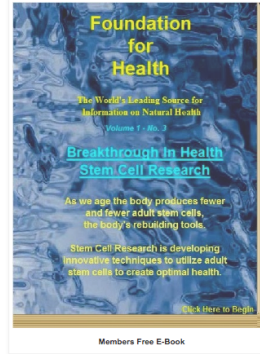
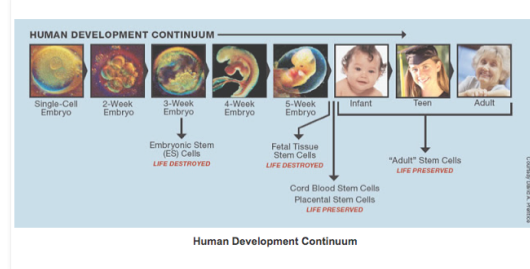
Help Your Body Heal Itself

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What is a Adult Stem Cell?

The National Institutes of Health defines a stem cell in this way:

A stem cell is a "blank" cell that has not yet made up its mind as to what it is going to be. "Stem cells have the remarkable potential to develop into many different cell types in the body. Serving as a sort of repair system for the body, they can theoretically divide without limit to replenish other cells as long as the person is still alive. When a stem cell divides, each new cell has the potential to either remain a stem cell or become another type of cell with a more specialized function, such as a muscle cell, a red blood cell, or a brain cell."



The First Creation of Life

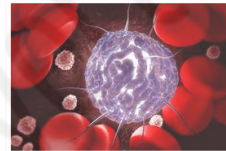
When the sperm fertilizes the egg the first creation is a stem cell. It then divides into more stem cells which continue to divide until they begin to differentiate (or change), becoming specific types of cells that will go on to form all of the different parts of the body. These are the embryonic stem cells that are the focus of the media's attention. But after birth, and throughout life, stem cells continue to be made in the body. And as science has recently discovered, these adult stem cells are the body's primary system of renewal and restoration.

At birth, human body has 25 million stem cells. By the time human beings reach 65 years of age, only have 5 million stem cells are left!

As we age, the number and quality of stem cells circulating in our body gradually decrease. This makes our body more susceptible to injury and other age-related health challenges.

Adult Stem Cells

Adult stem cells are predominantly formed in the bone marrow. And, just as in the beginnings of life, adult stem cells can literally change into any type of cell in the body throughout life. These adult stemcells are released from the bone marrow into the circulation of the bloodstream to seek out problem areas, then renew and restore those areas.



Stem Cell & Embryonic stem cell

Stem cells are biological cells found in all multi cellular organisms, they have the ability to divide and differentiate into different cell types and they also help to - renew and produce more stem cells.

There are two main types of stem cells: embryonic stem cells, which are isolated from the inner cell mass of a 5 to 8 day old fertilized egg, and adult stem cells, which are found in various tissues.

Stem cells and progenitor cells act as a repair system for the body, repairing the various organs and tissues in which they localized.

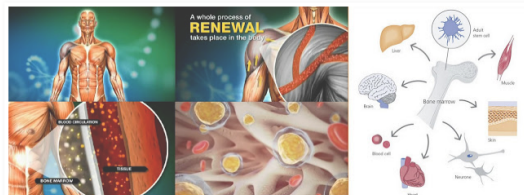
Stem cells from the embryo have the ability to develop into any type of tissue or organ in the developing embryo and are called pluripotent cells because of this ability.

But when transplant into any organ or tissue without control it can develop into a tumor containing bone, skin hair muscle etc moreover when the embryonic stem cells are harvested from the inner cell masses. The embryo is destroyed. For this reason on ethical and moral grounds Embryonic stem cell research was banned.

This lead scientist to look for other sources of stem cells and into the research of the uses adult stem cells in the repair and regeneration of tissues.

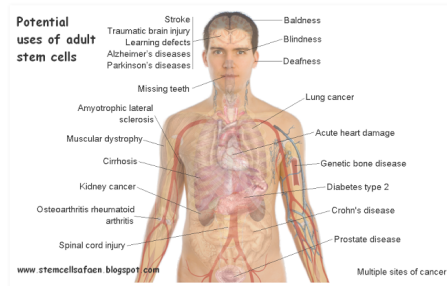
Unlike embryonic stem cells there is no risk to develop into tumors containing different tissues but only develop and regenerate and repair of damaged tissues in the organs, liver, kidney brain, heart and spinal cord injury.

Today Adult stem cells are routinely used in medical therapies, and can be harvested from a variety of sources, including umbilical cord blood and bone marrow, fatty tissue removed by liposuction, by passing blood through a device to extract the stem cells and even from menstrual blood of all stem cell types, autologous harvesting involves the least risk. By definition, autologous cells are obtained from one's own body, just as one may bank his or her own blood for elective surgical procedures.



Example: The Heart

When circulating stem cells find the heart in reduced health, they exit the bloodstream, attach to the heart and actually become brand new heart muscle cells, analogous to the original cells that created the infant's heart. They then begin dividing into still more new heart muscle cells. The same with the liver, the kidneys, the brain, the skin, eyes, any organ, tissue, muscle, bone, connective tissue, literally any part of the body that is in need of restoration.



Adult stem cells in your bone marrow constitute the natural healing system of your body. Wherever there is an injury or damage to any organ, stem cells are released from the bone marrow. They migrate to that organ and become healthy cells of that organ, literally repairing the damaged tissues.



Why Do We Need Stem-Cells?

Why do kids seem to recover so quickly, when adults take much longer? A child gets a cut and it's healed in three days. We get a cut and it takes a couple of weeks to get better. Well, for reasons scientists have yet to discover, as we get older these stem cells get 'clogged up' in the bone marrow and don't release as readily as they did when we were kids. A child recovers so quickly primarily because their system of stem cell release into the bloodstream is functioning at optimal levels. The older we get, the fewer and fewer stem cells are released into the bloodstream and the more easily we succumb to health problems, injury and aging.



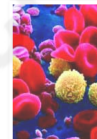
Additional Notes

- We need vitamins, antioxidants, good food, doctors and sometimes medication. But none of them rebuild the body. None of them can actually bring back new tissue, bone, organs, or any part of the body. Science has just recently discovered that the only system known that actually rebuilds the body is your own adult stem cells. If they are not releasing into the bloodstream as they should, you suffer degradation in health.
- Traditional health supplements nourish existing cells. They do not create new cells.
- Medicines alter or aid the body's response to health issues. But, they do not rebuild any part of the body.

Stem cells are the only known source for rebuilding the body and renewing health by restoring lost or degraded cells.

What Do Stem Cells Mean for My Health?

The National Institute of Health identifies **73 treatable diseases using adult stem cells in therapy**. These costly and complex therapies typically deliver a massive quantity of adult stem cells to the area undergoing treatment. Most require that stem cells be harvested from the patient or an adult donor, programmed in a lab to become a specific type of cell, and then injected into the body. For treatment of disease these therapies are the best method of recovery, producing truly remarkable results. But, most of us don't have health issues that require these extensive procedures.



73 CURRENT HUMAN CLINICAL APPLICATIONS USING ADULT STEM CELLS

ANEMIAS & OTHER BLOOD CONDITIONS	AUTO-IMMUNE DISEASES
Sickle cell anemia	Systemic lupus (auto-immune condition that can affect skin, heart, lungs, kidneys, joints, and nervous system)
Sideroblastic anemia	Sjogren's syndrome (autoimmune disease w/ symptoms similar to arthritis)
Aplastic anemia	Myasthenia (An autoimmune neuromuscular disorder)
Red cell aplasia (failure of red blood cell development)	Autoimmune cytopenia
Amegakaryocytic thrombocytopenia	Scleromyxedema (skin condition)
Thalassemia (genetic [inherited] disorders all of which involve underproduction of hemoglobin)	Scleroderma (skin disorder)
Primary amyloidosis (A disorder of plasma cells)	Crohn's disease (chronic inflammatory disease of the intestines)
Diamond blackfan anemia	Behcet's disease
Fanconi's anemia	Rheumatoid arthritis
Chronic Epstein-Barr infection (similar to Mono)	Juvenile arthritis
BLADDER DISEASE	Multiple sclerosis
End-stage bladder disease	Polychondritis (chronic disorder of the cartilage)
OCULAR	Systemic vasculitis (inflammation of the blood vessels)
Corneal regeneration	Alopecia universalis
CANCERS	Bluetger's disease (limb vessel constriction, inflammation)
Brain tumors—medulloblastoma and glioma	Juvenile (Type-1) Diabetes
Retinoblastoma (cancer)	CARDIOVASCULAR
Ovarian cancer	Acute Heart damage
Skin cancer: Merkel cell carcinoma	Chronic coronary artery disease
Testicular cancer	IMMUNODEFICIENCIES
Lymphoma	Severe combined immunodeficiency syndrome
Non-Hodgkin's lymphoma	X-linked lymphoproliferative syndrome
Hodgkin's lymphoma	X-linked hyper immunoglobulin M syndrome
Acute lymphoblastic leukemia	LIVER DISEASE
Acute myelogenous leukemia	Chronic liver failure
Chronic myelogenous leukemia	Liver cirrhosis
Chronic myelomonocytic leukemia	NEURAL DEGENERATIVE DISEASES & INJURIES
Juvenile myelomonocytic leukemia	Parkinson's disease
Cancer of the lymph nodes: Angioimmunoblastic lymphadenopathy	Spinal cord injury
Multiple myeloma (cancer affecting white blood cells of the immune system)	Stroke damage
Myelodysplasia (bone marrow disorder)	WOUNDS & INJURIES
Breast cancer	Limb gangrene
Neuroblastoma (childhood cancer of the nervous system)	Surface wound healing
Renal cell carcinoma (cancer of the kidney)	Jawbone replacement
Soft tissue sarcoma (malignant tumor that begins in the muscle, fat, fibrous tissue, blood vessels)	Skull bone repair
Ewing's sarcoma	OTHER METABOLIC DISORDERS
Various solid tumors	Hurler's syndrome (hereditary genetic disorder)
Waldenstrom's macroglobulinemia (type of lymphoma)	Osteogenesis imperfecta (bone/cartilage disorder)
Hemophagocytic lymphohistiocytosis	Krabbe Leukodystrophy (hereditary genetic disorder)
POEMS syndrome (osteosclerotic myeloma)	Osteopetrosis (genetic bone disorder)
Myelofibrosis	Cerebral X-linked adrenoleukodystroph

*There are no current clinical trials in humans with embryonic stem cells:

"It is nearly certain that the [human] clinical benefits of the [embryonic stem cell] research are years or decades away. This is a message that desperate families and patients will not want to hear."