

Stem Cells for Life



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Researchers feel that **stem cells** could have the potential to treat several diseases, such as Diabetes and Parkinson's, Muscular Dystrophy and more, which continue to challenge mankind till this day.

Stem Cells

Stem cell research is directed towards curing or preventing a host of fatal conditions and diseases.

Here's a brief explanation about **stem cells**; what they are, how they could be used to treat disease and injury and why they are replete with hope and promise.

- A cell is the **basic unit** of the human body.
- Cells **grow and divide** to form various organs of the body (such as heart, brain, liver, bone).
- Stem cells are **unspecialized** cells that have two defining properties: the ability to **differentiate** into other cells and the ability to **self-regenerate**.
- The ability to **differentiate** is the potential to develop into other cell types.
- **Self-regeneration** is the ability of stem cells to divide and produce more **stem cells**.

Dental Stem Cells

Dental pulp is the soft live tissue inside a tooth. Dental pulp contains stem cells, known as Dental Pulp Stem Cells. The finest Dental Pulp Stem Cells are found in a baby teeth or milk teeth. The stem

cells from the milk teeth are '**mesenchymal**' type of cells i.e. cells that have the ability to generate a wide variety of cell types like chondrocytes, osteoblasts and adipocytes. **Chondrocytes** are cells that have the ability to generate cartilage, which can play an important role in the treatment of arthritis and joint injuries. **Osteoblasts** are cells that have the ability to



generate bones. **Adipocytes** are cells that have the ability to compose adipose tissue, specialized in storing energy as fat. In essence, dental stem cells can

generate solid structures of the body such as bone, new dental tissue, cartilage and muscle. New research suggests the potential to regenerate nerves. This is being studied further for use in dentistry and medicine. With these properties of dental stem cells, you can well imagine the sheer confidence with which the next generation can face a host of life-threatening situations later in life, since they will be equipped with the means to rectify and regenerate parts of their own bodies.

Therapeutic Emerging Treatments

Mesenchymal stem cells have already proven to be a powerful and potent platform for developing treatments. As you are reading this, scientists are studying the role of these amazing cells in treating conditions such as:

- Alzheimer's
 - ALS
 - Autism
 - Brain Damage
 - Cerebral Palsy
 - Cosmetic & Anti Aging applications
 - Crohns Disease
 - Corneal Repair
 - Diabetes
 - Eye Diseases
 - Hair regeneration
 - Kidney Diseases
 - Liver Diseases
 - Macular Degeneration
 - Multiple Sclerosis
 - Parkinsons Disease
 - Myocardial Infarction
 - Muscular Dystrophy
 - Rheumatoid Arthritis
 - Sceleroderma
 - Spinal Cord Injuries
 - Stroke
 - Skin Repair
-

Who Can Bank Stem Cells?

Anybody can bank stem cells as long as the teeth or tooth to be extracted are in healthy conditions.



Children

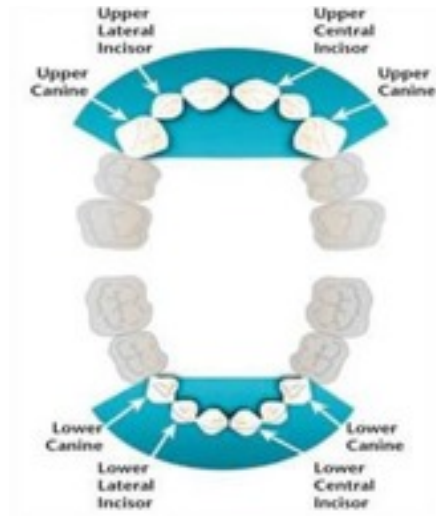
Deciduous teeth, otherwise known as baby teeth, temporary teeth and primary teeth, are the first set of teeth in the growth development of humans. Milk teeth start appearing at 6 months of age, the milk teeth are shed from age 5 onwards.

Dental stem cells are extracted from milk teeth of children aged 5 onwards. This is the ideal age as the quality of the stem cells starts to decrease with the increase in the age. The stem cells are most vital during this period.

Right Age To Collect Milk Teeth

The right time to recover baby tooth with stem cells is before the teeth become very loose, as the cells in the dental pulp will remain more viable if they continue to have a blood supply.

Instead of putting it under a pillow and discarding them, they can now be a potential source of repair kits for the future!



Milk Teeth highlighted in blue are collected for dental stem cell extraction

Teens Undergoing Orthodontic Procedure

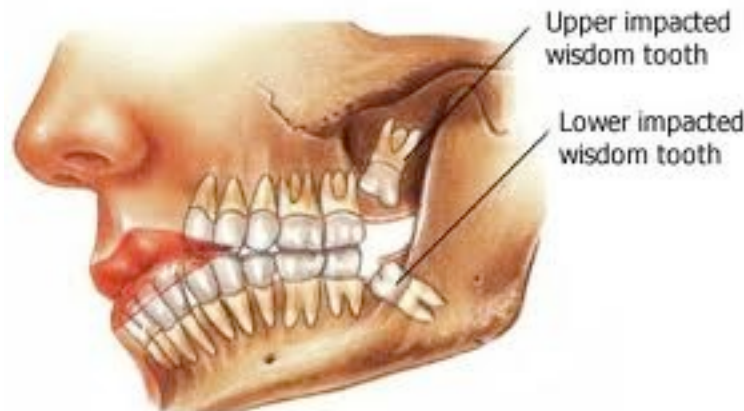


For children over the age of 12 years and for teens the opportunity to bank dental stem cells arises specially when they are undergoing any orthodontic procedures where healthy teeth are removed to apply braces, etc. Premolar teeth and any other permanent teeth removed for these purposes too are rich sources of stem cells.

So if your teenage children are undergoing any sort of orthodontic procedure or Braces, you can simply bank his / her dental stem cell and still ensure a healthy life for their future.

Young Adult (Wisdom Teeth)

Wisdom teeth are also rich source of mesenchymal stem cells. Cells with potential to replicate and differentiate into various other cells types such as – neural, bone, skeletal muscle and others.



In case of wisdom teeth, the rule is the sooner, the better. As age progresses, it has been observed that there is a loss of viable stem cells in teeth, hence to avoid that it is better to get your wisdom teeth extracted sooner and stored. Viable stem cells have been found in healthy wisdom teeth of individuals aged 30 or more.

Only healthy wisdom teeth are collected for preservation. We recommend collection of wisdom teeth when they are extracted for either when they have already become impacted, or the wisdom teeth could potentially become problematic if not removed. Often they are also taken out for orthodontic procedures.

Banking Process

Banking is a decision you make before your child's teeth come out. Once the teeth are out, Dr. Kazemi will use Store-A-Tooth Transport Kit to safely and securely send them to their laboratory, where the stem cells inside will be processed. From there, the stem cells are frozen and stored in their cryopreservation facility, where they will be maintained until needed.

Store-A-Tooth's Process



- **Tooth Collection:** Dr. Kazemi extracts teeth to collect.
- **Transport:** Store-A-Tooth provides overnight shipping to their lab, in a temperature-controlled Tooth Transport Kit. In use worldwide for over 20 years, the Save-A-Tooth device (the main component in the Tooth Transport Kit) helps protect the dental pulp in your teeth during transport to their lab.
- **Stem Cell Processing:** Prior to freezing, stem cells are extracted from the dental pulp and grown in culture. Store-A-Tooth conducts a total cell count and then confirms the presence of the expected stem cells using flow cytometry. They also preserve a portion of the dental pulp in its original state.
- **Confirmation:** They send you a report detailing exactly what is present in the samples we are banking for you.
- **Cryopreservation:** Your sample is carefully cooled to a permanent storage temperature of less than -150°C (-240°F) in a vapor-phase liquid nitrogen cryopreservation vault. They use the latest cryopreservation (freezer) technology and maintain your samples in a gated storage facility with 24-hour security.
- **Usage:** If you need to access your stem cells, contact Store-A-Tooth and we will safely prepare and transport the cells to the clinic where the therapy will occur.

Pricing Summary



Vaccines, eating healthy, regular exercise... add stem cell banking to your plan for healthy living. It's a cost-effective way for you to ensure that as medical treatment technology advances, you or your child's healthcare options advance with it.

Store-A-Tooth costs:		Storage fees:	
Store-A-Tooth Solution	\$1,749	Annual Storage	\$120
Cultured Cell Service	\$1,449	Long Term	
Whole Tissue Service	\$849	Service Fee (20 years)	\$1,799 (\$600 savings)

Store-A-Tooth believes that everyone should have access to their stem cell banking service. They will help you find a plan that works for you.

Find out more about [Store-A-Tooth™ Solution](#) and how they are [making it affordable](#).

*** Dr. Kazemi does not charge any fee for the collection or shipping of teeth.**

About Dr. H. Ryan Kazemi



Dr. H. Ryan Kazemi is an oral and maxillofacial surgeon certified by the American Board of Oral and Maxillofacial Surgeons. He received his dental degree from the University of Pennsylvania, School of Dental Medicine in 1990. Following a one-year internship at the Albert Einstein Medical Center in Philadelphia, he pursued surgical training at The Washington Hospital Center in Washington, DC, where he received his certificate in Oral and Maxillofacial Surgery. Dr. Kazemi has practiced in Bethesda, Maryland, since 1997, providing a full spectrum of oral and maxillofacial surgery procedures with emphasis on extractions, dental implants, bone grafting, and corrective jaw surgery.

Dr. Kazemi is a diplomat of the American Board of Oral and Maxillofacial Surgeons, and an active member of the American Association of Oral and Maxillofacial Surgeons, American College of Oral and Maxillofacial Surgery, Academy of Osseointegration, American Dental Association and Entrepreneur Organization.

He has served as the founder and president of several dental and implant study clubs in the Washington DC area. Dr. Kazemi has published and lectured extensively on dental implants, bone grafting, and practice management. His newsletter, *To-The-Point* is read by more than 2000 dentists every month. He is also the founder of DDSForums.com, a professional networking site for dentists.

Dr. Kazemi serves on the medical staff for D.C. United, the major soccer league team in Washington, D.C. and the US national soccer team for the care of their athletes.

Our expertise and service allow you to:

- Be treated by a specialty trained and skilled doctor
- Achieve the results you expect
- Have a fast recovery
- Make appointments easily and efficiently
- Be seen quickly and on time
- Feel safe and comfortable
- Experience a warm and personal service



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