

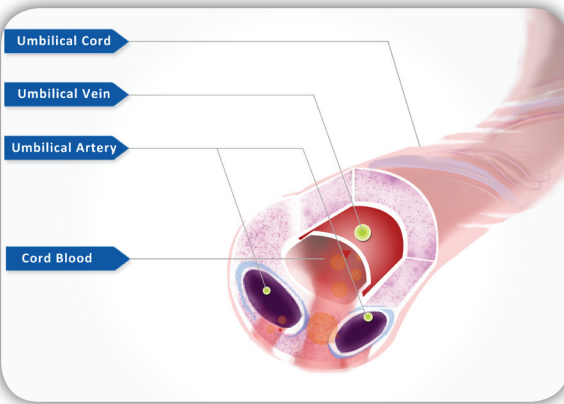


## Cord Tissue

### WHAT IS CORD TISSUE?

Cord tissue is a segment of your baby's umbilical cord that contains several different cell types, each of which may have future potential for cellular therapy. Cord tissue is valuable because it is a rich source of mesenchymal stem cells (MSCs), which are distinct from the blood stem cells found in your baby's cord blood.<sup>1</sup>

### WHAT IS THE DIFFERENCE BETWEEN CORD BLOOD STEM CELLS AND CORD TISSUE STEM CELLS?



UMBILICAL CORD BLOOD	UMBILICAL CORD TISSUE
Rich source of hematopoietic (blood) stem cells.	Rich source of mesenchymal stem cells.
Hematopoietic stem cells used in bone marrow transplants for 80+ diseases including cancer, genetic diseases and blood disorders. <sup>2</sup>	MSCs can inhibit inflammation, suppress the immune response, aid in tissue repair and differentiate into structural tissue including bone and cartilage. <sup>1</sup>
Clinical trials are investigating cord blood in the treatment of Autism, Acquired Hearing Loss, Type 1 Diabetes, Cerebral Palsy, Pediatric Brain Injury and Spinal Cord Injury.	Clinical development of cord tissue MSCs is at an early stage. MSCs from several tissues are in clinical trials to investigate treatments for Heart Failure, Stroke, Rheumatoid Arthritis, Multiple Sclerosis and many more. <sup>3</sup>

### WHAT CAN THE CORD TISSUE STEM CELLS BE USED FOR?

MSCs from several different tissues are currently being tested in a variety of clinical trials including:<sup>3</sup>

- Bone and cartilage repair
- Autoimmune disorders – Crohn's disease, Multiple Sclerosis, Rheumatoid Arthritis
- Cardiovascular and peripheral vascular disease
- Liver disease
- Parkinson's disease
- Spinal cord injury
- Wound repair

### HOW IS CORD TISSUE STORED?

Inception Lifebank now offers the service of processing and storing cord tissue, so you have the opportunity to collect two types of stem cells from your newborn. After the birth of your child, and once the cord blood has been collected, the healthcare provider cuts a 20 cm piece of the umbilical cord. The segment of cord is sent, along with the cord blood, to Inception Lifebank for processing and cryopreservation. The cryopreserved cord tissue can be thawed and used as a source of MSCs, and potentially other cell types, in the future.<sup>4</sup>

### WHAT ARE THE ADVANTAGES OF BANKING CORD TISSUE?

While the clinical development of cord tissue MSCs is at the early stage, the field of regenerative medicine is advancing steadily. Stem cell research has been the foundation of regenerative medicine which has the potential to transform medicine. It is estimated that 1 in 3 people may benefit from regenerative medicine in the future.<sup>5</sup> The optimal conditions to isolate and treat MSCs for clinical use are still being developed. As such, Inception Lifebank stores your baby's intact cord tissue, preserving all the cells within it to maximize your family's future health options. Banking cord tissue today may provide future options for your child and your family.

1. Nagamura-Inoue and He (2014) World Journal of Stem Cells 6(2): 195-202 Umbilical cord-derived mesenchymal stem cells: Their advantages and potential clinical utility.

2. <http://bethematch.org/Support-the-Cause/Donate-cord-blood/Cord-blood-is-changing-lives/>

3. <http://www.clinicaltrials.gov>

4. Choudhery et al (2013) Curr Stem Cell Res Ther 8(5): 370-80

5. Harris (2008) Stem Cell Rev 4:269-274