Umbilical Cord Blood Harvesting and Storage for Future Use

Policy Number: SRST2026T0109CC
Effective Date: July 1, 2026

Instructions for Use

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Related Policy

- Hematopoietic Stem Cell Transplantation

Coverage Rationale

Due to insufficient evidence of efficacy, prophylactic collection and storage of umbilical cord blood is unproven and not medically necessary for an individual who is currently healthy but desiring to provide the opportunity for a future unspecified autologous or allogeneic stem cell transplantation.

For additional information and coverage of umbilical cord blood stem cell transplantation, refer to the Optum Clinical Guideline titled Hematopoietic Stem Cell Transplantation.

Applicable Codes

The following list(s) of procedure and/or diagnosis codes is provided for reference purposes only and may not be all inclusive. Listing of a code in this policy does not imply that the service described by the code is a covered or non-covered health service. Benefit coverage for health services is determined by the member specific benefit plan document and applicable laws that may require coverage for a specific service. The inclusion of a code does not imply any right to reimbursement or guarantee claim payment. Other policies and guidelines may apply.

CPT Code	Description
38206	Blood-derived hematopoietic progenitor cell harvesting for transplantation, per collection; autologous
38207	Transplant preparation of hematopoietic progenitor cells; cryopreservation and storage
88240	Cryopreservation, freezing and storage of cells, each cell line

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HCPCS Code	Description
S2140	Cord blood harvesting for transplantation, allogeneic

Description of Services

Umbilical cord and placental blood are rich in stem cells that can be used to treat diseases such as leukemia, lymphoma, myeloma, aplastic anemia, and certain immunologic and metabolic disorders. Cord blood banking is a process of salvaging the umbilical cord and placental blood and storing it for future transplant procedures by cryogenically freezing it immediately after the birthing process.

Use of cord blood as a source of hematopoietic (blood-forming) stem cells has led to the establishment of cord blood banks worldwide. Private cord blood banks store cord blood for future use by the child (autologous) or a family member (allogeneic) should the need arise. Public cord blood banks accept cord blood donations and make them available to anyone in need of a transplant due to illness.

Clinical Evidence

A search of the published clinical evidence did not find any high-quality studies evaluating the storage of umbilical cord blood for hypothetical future use.

Clinical Practice Guidelines

American Academy of Pediatrics (AAP)

In a policy statement, the AAP states that although private cord blood banks serve parents who elect to store cord blood for potential self-use later in life, there is little evidence supporting use for this purpose. Accurate information about the potential benefits and limitations of allogeneic and autologous cord blood banking and transplant should be provided. Parents should be informed that autologous cord blood would not be used as a stem cell source if the donor developed leukemia later in life. It is important for parents to be aware that at this time, there are no scientific data to support the claim that autologous cord blood is a tissue source proven to be of value for regenerative medical purposes. (Shearer et al., 2017)

American College of Obstetricians and Gynecologists (ACOG)

An ACOG committee opinion states that if a patient requests information about umbilical cord blood banking, balanced and accurate information regarding the advantages and disadvantages of public and private banking should be provided. Patients should be aware that in certain instances, use of one's own stem cells is contraindicated. Most conditions potentially treated by a patient's own umbilical cord blood already exist in their own cells; therefore, the stored blood cannot be used to treat the same patient. The chance of an autologous unit of umbilical cord blood being used for a child or family member is remote, unless a family member is known to have a medical condition that could be treated with transplant; this fact should be disclosed to the patient. Directed cord blood banking should be encouraged when there is knowledge of a full sibling in the family with a medical condition who could benefit from cord blood transplant. They also state that the routine collection and storage of umbilical cord blood with a private cord blood bank are not supported by the available evidence. Patients should be made aware of the financial obligation for processing and annual storage fees related to for-profit cord blood banks. Families may consider the societal benefit from public umbilical cord blood donation to increase the chance for all groups of finding a matched cord blood unit. (ACOG, 2019; reaffirmed 2023)

In a separate FAQ, ACOG states that storing a child's stem cells in a private bank as "insurance" against future disease is not recommended. (ACOG, 2020; last updated February 2021; last reviewed May 2024)

American Medical Association (AMA)

In a report from the Council on Ethical and Judicial Affairs, the AMA states that umbilical cord blood stem cells are useful for some therapeutic purposes and that the utility of umbilical cord blood stem cells is greater when the donation is to a public rather than private bank. Physicians should encourage women who wish to donate cord blood to donate to a public bank if one is available. The AMA also indicates that private banking should be considered in the unusual circumstance of a family predisposition to a condition in which umbilical cord stem cells are therapeutically indicated. However, because of cost, limited likelihood of use, and inaccessibility to others, private banking should not be recommended to low-risk families. (AMA, 2007)

American Society for Transplantation and Cellular Therapy (ASTCT) [Formerly Named American Society for Blood and Marrow Transplantation (ASBMT)]

The ASTCT/ASBMT published the following recommendations related to banking of umbilical cord blood:

- Public banking of cord blood is encouraged where possible.
- Storage of cord blood for personal use is not recommended.
- Collecting and storing cord blood for a family member is recommended when there is a sibling with a disease that may be successfully treated with an allogeneic transplant.
- Family member banking on behalf of a parent with a disease that may be successfully treated with an allogeneic transplant is only recommended when there are shared human leukocyte antigen (HLA) antigens between the parents.

(Ballen et al., 2008)

Royal College of Obstetricians and Gynaecologists (RCOG)

RCOG states that the collection of nondirected donations and directed donations for at-risk families are acceptable procedures through established public sector cord blood banks. However, there is still insufficient evidence to recommend directed commercial cord blood collection and stem cell storage in low-risk families. (RCOG, 2006)

U.S. Food and Drug Administration (FDA)

This section is to be used for informational purposes only. FDA approval alone is not a basis for coverage.

Cord blood stored for potential future use by a patient unrelated to the donor meets the definition of a drug under the Food, Drug, and Cosmetic Act and biological product under Section 351 of the Public Health Service Act. Cord blood in this category must meet additional requirements and be licensed under a Biologics License Application or subject to an Investigational New Drug Application before use.
http://www.fda.gov/biologicsbloodvaccines/resourcesforyou/consumers/ucm236044.htm. (Accessed March 13, 2026)

References

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Policy History/Revision Information

Date	Summary of Changes
07/01/2026	**Applicable Codes** • Removed CPT code 38205 **Supporting Information** • Updated *Clinical Evidence*, *FDA*, and *References* sections to reflect the most current information • Archived previous policy version 2026T0109BB

Instructions for Use

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