

Serum Tears Made Simple

INFORMATION FOR PROVIDERS



Historical Overview of Autologous Serum Tears

First described in 1975, autologous serum tears are customized eye drops derived from a patient's own blood serum. Their composition mimics natural tears, with components like growth factors and cytokines that are recognized in the literature for promoting healing of the ocular surface epithelium and restoring tear film homeostasis.^{1,2}

In 2017, as part of its quest to achieve global consensus concerning multiple aspects of dry eye disease (DED), the Tear Film & Ocular Surface Society (TFOS) Dry Eye Workshop (DEWS II) initiative adopted the use of autologous serum tears as a treatment for DED.³

Algorithms such as those from TFOS DEWS II, the American Society of Cataract and Refractive Surgeons (ASCRS) Cornea Clinical Committee, and the Cornea, External Disease and Refractive Society (CEDARS) group have provided much needed direction to streamline the categorization and staging of DED and recommending treatments. The algorithms include serum tears as an important therapeutic option for patients with stage 3 or moderate to severe DED.^{4,5,6}

Beyond DED, physicians have included serum tears in treatment regimens for a broad spectrum of ocular surface conditions.⁷

Natural Tears vs. Serum Tears

Blood serum contains several of the same beneficial components found in natural tears produced by the lacrimal glands, so the composition of serum tears is comparable to natural tears.

	Natural Tears	Serum Tears
ph	7.4	7.4
Osmolality (SD)	298	296
EGF (ng/ml)	0.2-0.3	0.5
TGF-β (ng/ml)	2-10	6-33
Vitamin A (mg/ml)	0.02	46
Lysozyme (mg/ml) (SD)	1.4 (0.2)	6
SigA (μg/ml) (SD)	1190 (904)	2
Fibronectin (μg/ml) (SD)	21	205





Vital Tears Standardizes The Process Of Making Serum Tears

Historically, serum tears were prepared by individual physicians for individual patients without a consistent approach for quality control. Today, Vital Tears is preparing serum tears in a standardized setting using rigorous quality-controlled processing procedures to ensure consistency, quality, and safety.

Vital Tears Are:



PRESERVATIVE FREE

Vital Tears are **preservative free**



CUSTOM MADE

Vital Tears are **custom made** for each patient to the exact specifications advised by their eye care provider



SAFE

Vital Tears are **processed in a medical laboratory** by dedicated technicians using validated safety procedures



MICROFILTERED

Vital Tears are **microfiltered** to remove pathogens

Vital Tears Makes Serum Tears Simple

Vital Tears can provide your patients with **hassle-free, rapid access** to serum tears in as little as **48 hours after a blood draw**, regardless of where they live in the United States.



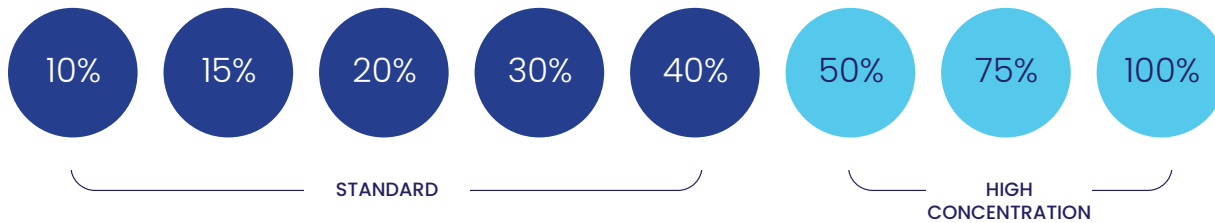
The Vital Tears Process:

- 1 Register as a provider and place an order using our online portal.
- 2 The Vital Tears Patient Services team contacts the patient to schedule the blood draw, collect payment and explain how to use and store their tears.
- 3 Blood is drawn at one of our 400+ collection facilities nationwide or by a mobile phlebotomist and shipped overnight to our processing lab.
- 4 Our highly trained technicians produce the serum tears in an aseptic environment under a laminar flow hood. The blood serum is diluted with balanced salt solution according to the doctor's order.
- 5 The tears are shipped cold to the patient within 48 hours of their blood being drawn.

Patient Services is available to answer patients' questions as they get started with their tears and will reach out to help them get refills of Vital Tears in a timely manner.

Product Specifications

Available Concentrations



Ordering & Pricing



Vital Tears Pricing Includes

Patient Blood Draw

A \$20 fee applies for mobile phlebotomy

Processing & Formulation

of customized Vital Tears

FedEx Shipment

from the blood collection facility to our lab and from the lab to the patient

The actual length of time that a supply of tears will last depends on the concentration and dosage ordered.



Storing Vital Tears

Vital Tears are provided in 3ml aliquots, which last one week in refrigeration and six months frozen.



About Vital Tears

Vital Tears was founded in 2015 with the mission to provide convenient access to autologous serum tears for patients across the United States.

We employ a state-of-the-art process to deliver high-quality, customized serum tears quickly and efficiently to patients who need them.

Our team is committed to serving our patients and clinical partners with excellence.



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Learn more

vitaltears.org

References

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