

# Autologous fibrin glue

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Autologous [fibrin glue](#) (also called fibrin [sealant](#)) is a formulation used to create a fibrin clot.

It is made up of [fibrinogen](#) (lyophilised pooled human concentrate) and [thrombin](#) (bovine, which is reconstituted with calcium chloride) that are applied to the tissue sites to glue them together.

Thrombin is an enzyme and converts fibrinogen into fibrin monomers between 10 and 60 seconds giving rise to a three-dimensional gel.

Factors that influence dimensional structure of fibrin gel giving rise to fine or coarse gel

Changing concentration of fibrinogen Changing concentration of thrombin- increase concentration increases ultimate tensile strength and young's modulus of gel Changing concentration of calcium pH Temperature It may also contain aprotinin, fibronectin and plasminogen.[9] This glue can be used for repairing dura tears, bronchial fistulas and for achieving hemostasis after spleen and liver trauma.

It is also employed in "no sutures" corneal transplantation, pterygium excision with amniotic membrane or conjunctival autograft, and in ocular trauma for corneal or conjunctival defects.

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[Vivostat autologous fibrin glue](#) is a safe and effective method for fixing the [grafts](#) in [endoscopic skull base repair](#). The advantages of this approach are easy application, elimination of the risk of allergic, immunological and infectious [complications](#), as well as acceleration of [tissue regeneration](#) <sup>1)</sup>.

<sup>1)</sup>

Shelesko EV, Doronina VA, Sharipov OI, Kvan OK, Chernikova NA, Strunina YV, Zinkevich DN. Primenenie autologichnogo fibrinovogo kleya v endoskopicheskoi plastike defektov osnovaniya cherepa pri nazal'nykh likvoreyakh [[Autologous fibrin glue](#) for [endoscopic skull base repair](#) in patients with [cerebrospinal fluid leakage](#)]. Zh Vopr Neurokhir Im N N Burdenko. 2023;87(1):49-54. Russian. doi: 10.17116/neiro20238701149. PMID: 36763553.

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