

Fibrinogen



Description, significance:

The fibrinogen level is determined using the Clauss method (addition of excess thrombin and measurement of the clotting time) and is therefore a functional assay, but the information is given as a concentration (g/L or mg/dL).

Fibrinogen is an acute phase protein, so levels must always be interpreted in conjunction with other acute phase proteins. Even apparently normal fibrinogen values can indicate fibrinogen consumption in acute phase situations (e.g. infections).

The fibrinogen levels are determined to assess the course of acute phase reactions (infections), to detect DIC, dilutional coagulopathy, to clarify bleeding tendencies, and to monitor fibrinolytic therapy. An immunological determination of the fibrinogen concentration is helpful in the differential diagnosis of dys- or afibrinogenemia.

Reference range:

2.0 – 4.0 g/L

Increased values:

in acute phase reactions

Decreased values:

DIC, dys- or afibrinogenemia, dilutional coagulopathy, hyperfibrinolysis, fibrinolytic therapy, cortisone therapy

Preanalytics:

The fibrinogen level is automatically determined from citrate plasma. Care must be taken to collect blood accurately, avoid contamination, fill the blood tube correctly and mix well with the citrate. The blood sample must be sent to the laboratory as quickly as possible.

Influencing/disturbing factors:

High doses of anticoagulants, fibrinolytic therapy.

References:

Thomas L, Laboratory and Diagnosis, 2023, Release 5: <https://www.labor-und-diagnose.de/index.html>

Parameter catalog of the Clinical Institute for Laboratory Medicine, Med.Univ.Wien and AKH Vienna:

<https://www.akhwien.at/default.aspx?pid=3982>

List of services for clinical chemistry, Univ.Klinikum Ulm: <https://www.uniklinik-ulm.de/zentrale-einrichtung-klinische-chemie/leistungskatalog.html>