

Indications Element COAG+

PT and aPTT

Prothrombin time (PT) as well as activated partial thromboplastin time (aPTT) are screening tests for the evaluation of secondary hemostasis or disturbed hemostasis. They provide information about abnormalities in the process of blood coagulation. PT thereby reflects the extrinsic and common pathway of hemostasis (function of prothrombin and coagulation factors V, VII and X), while aPTT examines the intrinsic and common pathway (function of prothrombin and coagulation factors V, VIII, IX, X, XI and XII).

Prolongation of PT und aPTT takes place after loss of $\geq 70\%$ of the activity of one or more coagulation factors. In this case clinical bleeding can occur. As coagulation factors are synthesized in the liver, prolongations of PT / aPTT can be a hint towards liver disease.

- **Diagnostic of hematoma, nasal bleeding, intestinal hemorrhage**
- **Clarification of an increased bleeding tendency**
- **Screening after hereditary coagulopathies before surgery**
- **Examination of coagulation in face of hepatopathies**
- **therapy control in face of intoxication with Cumarin derivates**

Bleeding disorders with prolonged PT and / or aPTT:

- inherited deficit in coagulation factors:
 - German Shepherd: Factor VIII+IX deficit (Hemophilia A+B), prolonged aPTT
 - Laborador Retriever: "
 - Irish Setter: "
 - Weimaranian: "
 - Siberian Husky: "
 - Beagle: Factor VII deficit, prolonged aPTT
- Diminished synthesis of coagulation factors in face of liver disease: prolonged PT / aPTT
- Ingestion of rat poison (Vitamin K antagonists): initially prolonged PT, followed by prolonged aPTT
- Disseminated intravascular coagulation: prolonged PT / aPTT
Further parameters should be evaluated to gain distinctive diagnosis (platelet count, D-Dimer)

