

# Diphenylhydantoin Phenytoin

## General:

Phenytoin (diphenylhydantoin) acts similarly to lidocain, mexiletin and tocainid antagonistically as antiarrhythmic agent by inhibiting depolarization and reexcitability and by accelerating the repolarization. It is used as antiepileptic drug and in ventricular and supraventricular arrhythmias. Pheny-toin is absorbed to 100% in the gastrointestinal tract and reaches maximum plasma levels within 4-12 hours. The half-life is 38 hours, the plasma protein binding is 80-90%. Over 90% is bio-transformed in the liver, accumulation is therefore observed in liver disturbances.

- **Diphenylhydantoin/Phenytoin**

Indication: Therapy monitoring

Material: 1 ml serum

TAT: 5-7 days\*

Method: HPLC

Units: mg/l

Ref.- range: 10.0 - 20.0

Note: Phenytoin is bound to albumin to 90%. If intoxication or therapy failure is suspected determination of free phenytoin is recommended.

- **Diphenylhydantoin, free**

Indication Therapy monitoring in renal insufficiency, uremia, albumin deficiency.

Material: 2 ml of serum

TAT: 5-7 days\*

Method: HPLC

Units: µg/ml

Ref. range: 0.5 - 2.0

For complete list of laboratory test offered at Freiburg Medical Laboratory, please visit <http://www.fml-dubai.com/parameter-listings/>