

Relativní hustota moči (stanovení diagnostickými proužky)

By relative urine density we mean the ratio of urine density to water density. The density of water is practically equal to 1 kg / l, so the difference between the density of water (in kg / l) and the relative density of urine is negligible. The density in the SI system is $\text{kg} \cdot \text{m}^{-3}$. The density of the sample relative to the density of water is a relative quantity and is therefore given by a dimensionless number.

Determination of urine density

Urine density is estimated indirectly from cation concentrations using diagnostic strips. The indicator zone of the strip contains a suitable polyelectrolyte as an ion exchanger and the acid-base indicator bromothymol blue. The principle of diagnostic strips is based on the exchange of cations from urine, especially Na^+ , K^+ , NH_4^+ , for H^+ polyelectrolyte ions in the indication zone. The released H^+ acidifies the weakly buffered acid-base indicator, which is in alkaline form. Acidification is accompanied by a change in the color of bromothymol blue. The disadvantage is that the examination with diagnostic strips does not take into account non-electrolyte substances such as glucose, proteins, urea, creatinine and some others.