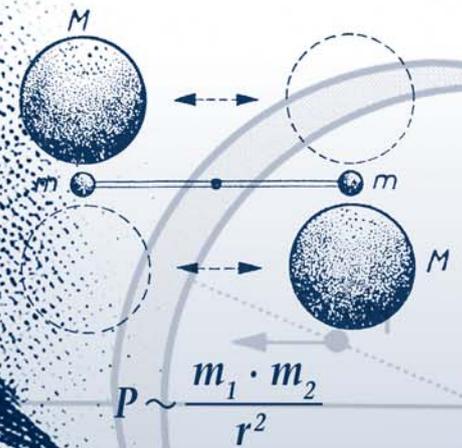
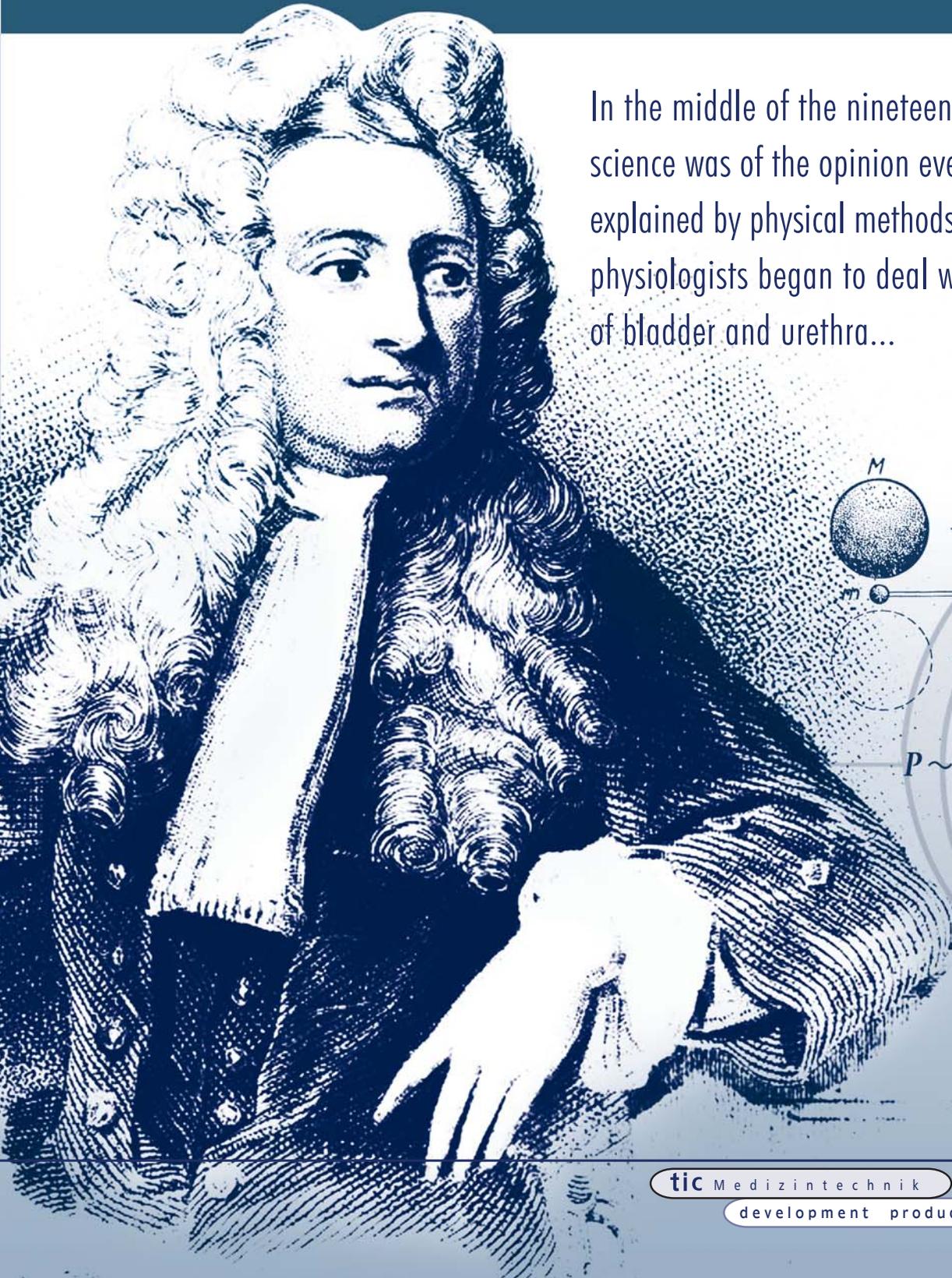


diagnosticline



NEWTON

In the middle of the nineteenth century, the science was of the opinion everything could be explained by physical methods, anatomists and physiologists began to deal with the function of bladder and urethra...



diagnosticline

Newton – the compact urodynamic

... Actually the urination in human beings would be nothing else as emptying a reservoir. The nature evolved a complicated rule- and measurement-system indeed, so that the rather easy urination becomes a complex procedure.

Your expectations of a urodynamical measurement device:

1. extensive functionality, excellent measuring precision, convincing results combined in progressive technology
2. simple, time-saving and consequently functionality
3. cost-effective purchase

The Newton-device will come up to your expectations:

1. Measurement programs and analysis according to ICS-standards: (partly optional)
 - Cystomanometry
 - compliance (Detrusor-coefficient)
 - Pressure-flow-measurement
 - ICS, CHESS, linear PURR, OCO, DECO, OBI, DAMPF
 - Urethral-pressure-profile (stress- und rest-profile)
 - transmission-, depressions-, urethral-closure-pressure, depression-quotient, transmissionsfactor, CLPP, VLPP

Newton 1643 - 1727: The causality describes the relation between cause and effect

The complication-free determination of a cause regarding to a effect, which is mostly already known in advance: With the urodynamical measuring station "Newton".

URODYNAMICS



$$F = F_Z \Rightarrow G \cdot \frac{m \cdot M}{R^2} = \frac{m \cdot v^2}{R} \left. \begin{array}{l} v = \frac{2 \cdot \pi \cdot R}{T} \end{array} \right\} \Rightarrow \frac{G \cdot M}{R^2} = \frac{4 \cdot \pi^2 \cdot R^2}{R \cdot T^2} \Rightarrow$$

$$G \cdot \left. \begin{aligned} \frac{m \cdot m_S}{r_S^2} &= \frac{m_S \cdot v^2}{r_S} \\ v &= \frac{2 \cdot \pi \cdot r_S}{T} \end{aligned} \right\} \Rightarrow G \cdot \frac{m}{r_S^2} = \frac{4 \cdot \pi^2 \cdot r_S^2}{r_S \cdot T^2} \Rightarrow r_S^3 = \frac{G \cdot m \cdot T^2}{4 \cdot \pi^2} \Rightarrow r_S = \sqrt[3]{\frac{G \cdot m \cdot T^2}{4 \cdot \pi^2}}$$

- Uroflowmetry including simultaneous EMG-recording
 - Siroky et al.
 - Anal manometry including simultaneous EMG-recording
 - integral pressure
- 2. Functionality and handling**
 - method of measurement: waterperfusion- or microtip-catheter
 - intuitive graphical user interface (GUI), Windows®-based
 - touchscreen
 - conclusive consequence of operation steps
 - system-integrated highspeed printer, printout of the measurement results and analysis incl. doctors surgery or clinic logo
 - 3. Cost-effective purchase**

With pleasure we will send you an offer, which reflects the excellent price-performance ratio.



Pathophysiological classification of bladder and sphincter dysfunction

urinary reservoir dysfunction

Bladder

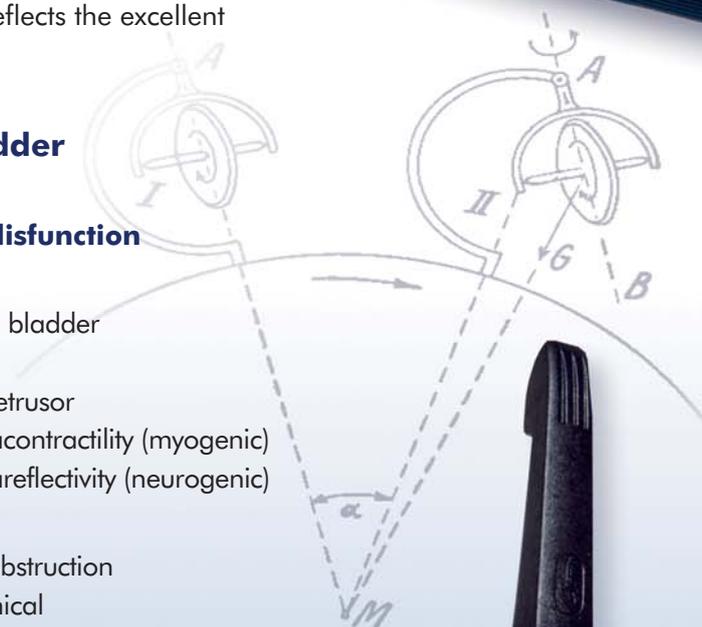
- hypersensitive bladder (sensoric Urge)
- hyperbaric bladder (low compliance)
- hyperactiver detrusor
 - instable (motoric Urge)
 - hyperreflectivity (neurogenic)

Bladder exhaust

- Insufficient sphincter
 - instable
 - hyporeaktiv
 - hypoton

urination dysfunction

- hyposensitive bladder
- hypoactive detrusor
 - hypo-/acontractility (myogenic)
 - hypo-/areflectivity (neurogenic)
- Sub-vesical obstruction
 - mechanical
 - functional (Detrusor-Sphincter-Dyssynergia)



Today - at the beginning of the twentyfirst century - there are several urodynamical examination methods for the medical specialist. With these urological functional diagnostics urinary reservoir or urination dysfunctions can be reliably diagnosed.

$$M = \frac{4 \cdot \pi^2 \cdot R^3}{G \cdot T^2} \quad M = \frac{4 \cdot \pi^2 \cdot (3,84 \cdot 10^8 \text{ m})^3}{6,67 \cdot 10^{-11} \frac{\text{m}^3}{\text{kg} \cdot \text{s}^2} \cdot (27,3 \cdot 24 \cdot 60 \cdot 60 \text{ s})^2} \approx 6,02 \cdot 10^{24} \text{ kg}$$



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Further devices of our diagnosticline

UroPort The digital Uroflowmetry device

Kopernikus The combined Uroflowmetry and EMG-measurement device

UroScreen The network capable Urodynamics

Cassini The combined Analmanometry and EMG-measurement device

