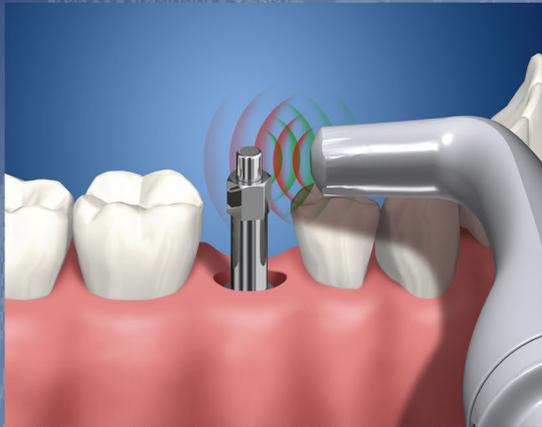


# Ready to load?



**Osstell™** *mentor*

The only objective guide when to load

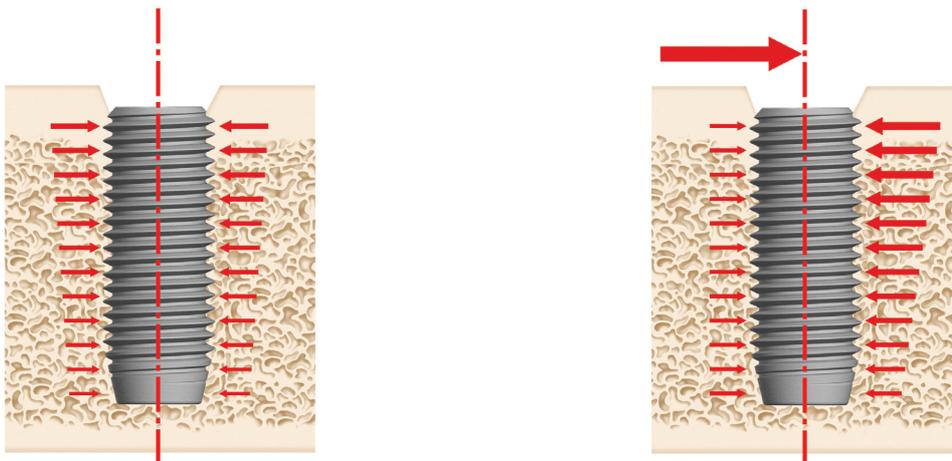
[www.osstell.com](http://www.osstell.com)

# Evolving implant treatment scenarios

What used to be a select treatment for the few is rapidly becoming common day practice, available to more patients. Thanks to the development of methods and components, patients who used to be turned away can now be treated. New protocols for treatment coincide with the increasing demand for early function. Clinicians, as providers of implant treatment, are faced with the question whether these changes represent a risk or an opportunity. Some issues have become more obvious today than before:

- When to load your implants?
  - How to predict and avoid potential failures?
- Clinicians need to avoid the risk of failure by early loading in inappropriate cases. It is of equal importance that patients are provided with the most effective, efficient and least invasive treatment in the minimum time. Recent data on immediate and early loading challenges traditional protocols. The trend is definitely away from a static protocol to a more individualised treatment!

## The importance of implant stability



Long-term experience in using osseointegrated implants for rehabilitation of edentulous patients shows that high success rates can be achieved (Esposito et al 2000). The most important prerequisite is achievement and maintenance of implant stability. Recently it has been demonstrated that implants having high primary stability can be subjected to immediate/early loading, with predictable results (Brånemark et al 1999, Ericsson et al 2000).

The use of Osstell™ provides a way to clinically measure implant stability and osseointegration (Meredith 1997). Recent findings with Osstell™ shows that it can be used as a diagnostic method to optimise implant treatment with regard to healing periods, type of prosthetic construction and surgical protocol (1 vs. 2 stage). Moreover, since measurements can be repeated over time, changes in implant stability during loading can be monitored. Implants exhibiting a decrease in stability, possibly due to overloading, can be detected and rescued prior to failure.

# How to use the Osstell™ *mentor* ISQ-value

Implant stability is measured by using the instrument together with the wireless Smartpeg™ attached to an implant or abutment. The technique is contactless, totally non-invasive and patients experience no sensation from the measurement, which takes 1-2 seconds. Stability is displayed as an ISQ-value by the instrument. This value (Implant Stability Quotient) is derived from the resonance frequency of the peg, which in turn depends on the stability of the implant. ISQ is scaled from 1 to 100; the higher the ISQ, the more stable the implant.

Stability can be measured at placement and also at any time during healing to determine if bone formation and remodelling is progressing as expected. The ISQ value can be used to support treatment decisions during implant care.

## At placement

Knowledge about the initial stability is important when making decisions regarding;

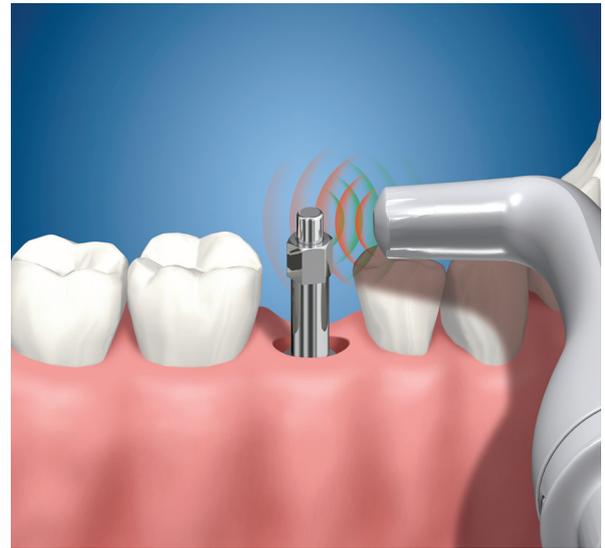
- Whether or not to restore the implant?
- Treatment protocol; immediate, early or delayed loading?

In addition the initial ISQ value will serve as a baseline enabling assessment of osseointegration and bone formation over time. If there is a change in bone height or stiffness there will be a corresponding change in the ISQ.

## Before loading

If a 2-stage procedure is chosen, the ISQ value can be measured at placement and again before loading, facilitating decisions regarding:

- Temporisation?
- Modified prosthetic construction?
- Wait and remeasure?



## After loading

If a screw retained prosthesis is used it is possible to re-measure at any time after loading. The technique is very sensitive to long-term changes in marginal bone height or stability.

## Osstell™ *mentor* – a guide to:

- **When to load**
- **Early warning**
- **Quality assurance**

# Osstell™ *mentor*, version 2

- Four times faster
- No pulsing beeps (optional)
- More resistant to electromagnetic noise
- Data Manager compatible\*

## Instrument Kit

The instrument is compact, hand held and easy to use. Measurement results are displayed, stored in memory and can also be transferred to a computer via the optional Docking Station and the Data Manager. It operates from a rechargeable battery, and is delivered with a measurement probe, mains plug, test block and manuals.

(Order no 100300)

## Docking Station Kit

The Docking Station is the communication unit for your PC when using the Data Manager for storing measurements in your computer or to upgrade the software in the instrument. It also serves as a charging station and a holder for the instrument when the measurement probe is detached from the instrument. Using the probe separated from the instrument, together with the cable, allows for sterile operation since the probe and the probe cable are autoclavable.

The kit includes the Docking Station, Probe cable and the USB cable.

(Order no 100303)

## Smartpeg™

The Smartpeg is attached to the implant or abutment when a measurement is made. It is easy to mount and due to the small size the space required is minimal. Smartpegs are available for major implant systems. They are single use, and delivered sterile.

(Order no, see separate Smartpeg™ list)



## Data Manager\*

The Data Manager is a PC-based software, which allows measurements to be transferred to a computer (Docking Station required).

(Order no 100304)



## References

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For additional information about Osstell™ *mentor*, supported implant systems, references and more, see our web site: [www.osstell.com](http://www.osstell.com)



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