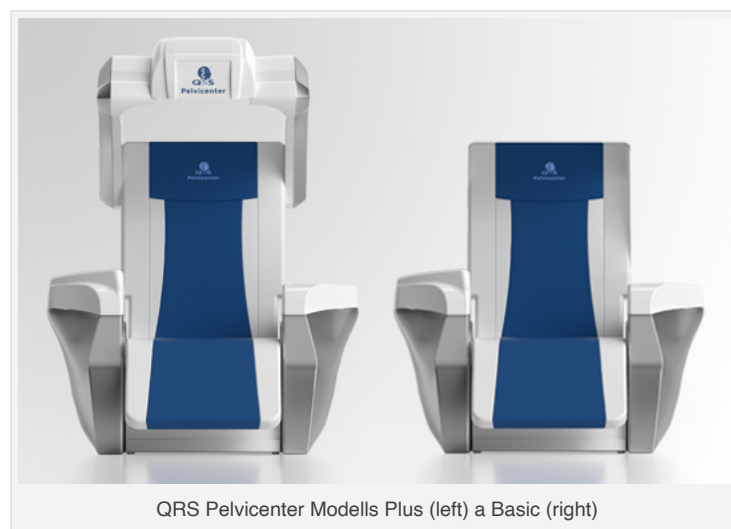


QRS 1010 Pelvicenter





QRS Pelvicenter perspective

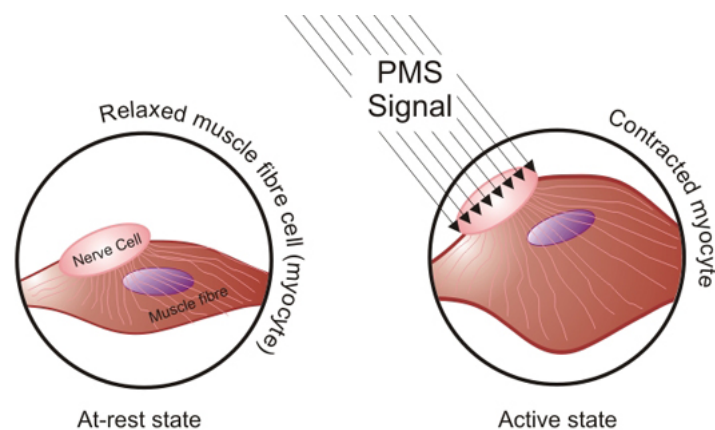


QRS Pelvicenter control console

High satisfaction with therapy

Muscle training for a strong pelvic floor

The QRS 1010 Pelvicenter – a.k.a. the magnetic chair – is a non-invasive form of pelvic floor treatment that aims to restore and strengthen the pelvic floor muscles. The patient is not required to participate actively in muscle training.

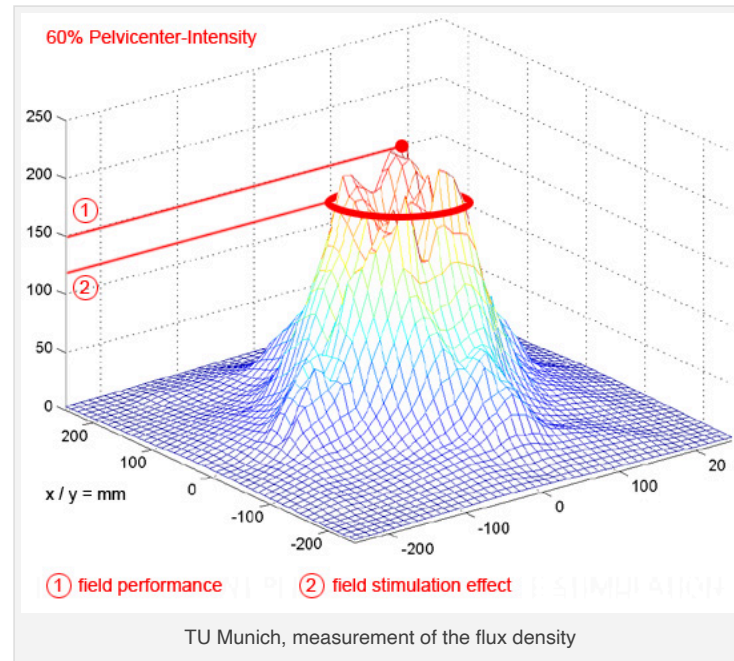


The family of procedures is known as PMS (pulsed magnetic stimulation) or RPMS (repetitive peripheral magnetic stimulation). When used to treat the pelvic floor, the PMS procedure is known as TPM (transpelvic magnetic stimulation). High-intensity, pulsed signals are used to control the muscles in the pelvic floor and the adjacent body core and thigh muscles. The muscle fibres are rhythmically contracted and relaxed without any conscious effort by the patient.

Description of the procedure

The effects of QRS Pelvicenter technology are comparable to those induced by TENS/EMS. But PMS, i.e. RPMS, is a substantially more complex procedure from a technical perspective. The induction of current flow through the nerves that control the muscles causes the muscles to contract. The benefits compared to electrical nerve stimulation are firstly that the procedure does not cause painful sensitivity of the skin and secondly that the biological field of action of the Pelvicenter penetrates far deeper into the tissue.

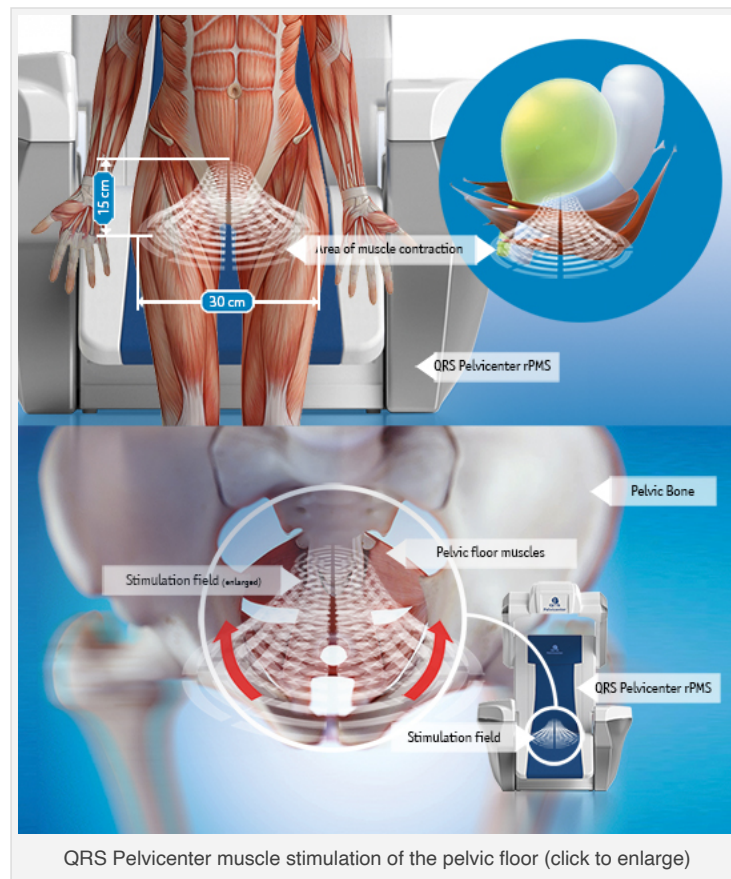
The following diagram shows the extent of the field of action when the Pelvicenter is running at 60% device output. The effective penetration depth at 60% device output is approx. 120 mm. At higher settings, the effective penetration depth rises to as much as 150 mm. The breadth of stimulation is approx. 400 mm at 100% device output.



Cables, electrodes or probes are not used to transmit current in the Pelvicenter therapy. Instead, QRS technology applies ultrahigh-intensity magnetic pulses that penetrate deep into the body,

creating an electric field that compels motor neurons to discharge naturally, precipitating a strong contraction in all muscles innervated by these nerves. RPMS means more than just high-intensity muscle training, as it also causes afferent nerve impulses in proprioceptors ("muscular sensors") that by definition carry information to the central nervous system (CNS). The CNS is home to the control centre for muscular movement and coordination; receiving the new signals leads to pronounced rebuilding and reorganisation processes. So when the stimulated muscles (in the pelvic floor) experience natural contraction at a later date, the structural reorganisation (plasticity) of the CNS will then trigger significantly more muscle fibres than before.

An important factor: RPMS does not stimulate sensitive nerve fibres due to their narrow diameter, ensuring that Pelvicenter therapy is entirely painless.

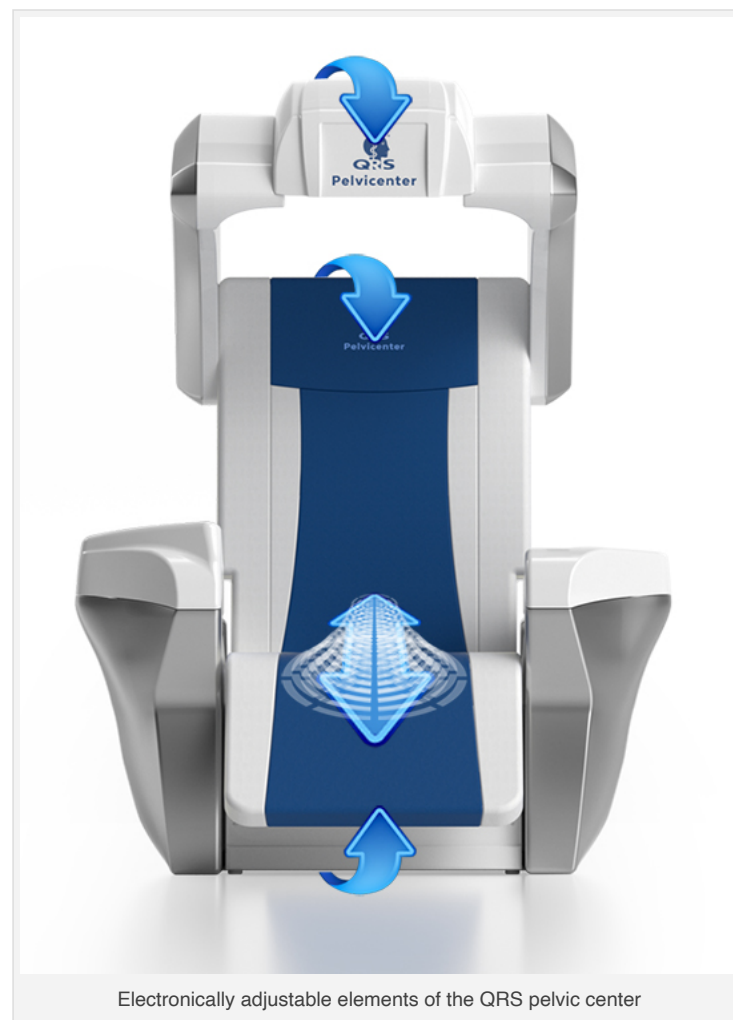


The pelvic floor muscles are contracted several thousand times during a 15 to 20-minute therapy session on the QRS Pelvicenter. Hence, the effects of pelvic floor training with the Pelvicenter are incomparably higher than even the best possible results of classic pelvic floor training. A more effective and simultaneously more comfortable therapeutic procedure than Pelvicenter muscle stimulation to reactivate weakened pelvic floor muscles simply does not exist.

Who is the patient?

Potential patients include women who have recently given birth and are determined to reduce susceptibility to urinary incontinence later in life, as well as older women with bladder weakness who refused to undergo invasive urological surgery or for whom more traditional measures are more difficult to implement.

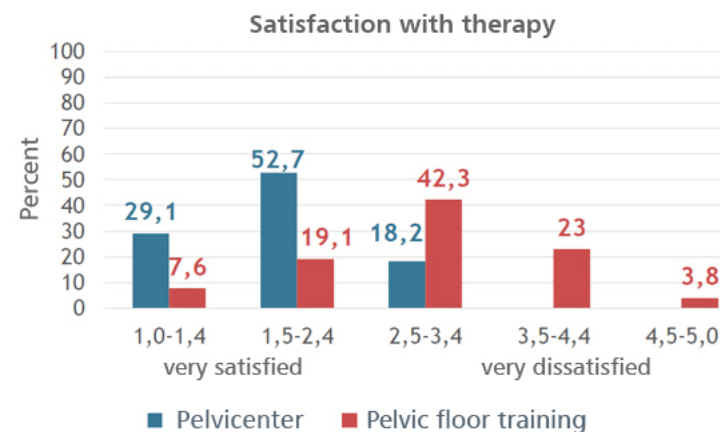
RPMS is also suitable for patients experiencing urinary incontinence after a radical prostatectomy. Erectile dysfunction is another important application area. Most cases of erectile dysfunction are caused by impaired venous drainage or by reorganisation processes in the cavernous bodies of the penis (fibrosation). RPMS therapy provides a transparent treatment model in both cases.



Comparison with classic pelvic floor training

The University of Vienna conducted a study (Aug. 2015) with 73 Nursing home residents to compare Pelvicenter training with classic pelvic floor training. 39 people took part in the pelvic floor training, while 42 were included in the Pelvicenter group. The forms of urinary incontinence were mixed incontinence and stress incontinence; the average age was approximately 80.

Besides the therapy outcome, subjective perceptions of both therapy methods were also compared. The conclusions drawn by the study organiser indicate that classic pelvic floor training, applied in a consistent form with expert guidance, can achieve outcomes that are similar to technology-assisted therapy using the Pelvicenter. "Overall, however, it is evident that pelvic floor training is only suitable for a small proportion of residents in long-term care facilities, while Pelvicenter training is a conceivable and feasible form of treatment for persons with both mobility restrictions and cognitive impairments. In consequence, a significantly larger number of older citizens would receive access to appropriate and effective incontinence therapy."



The results of the aforementioned study reflect the outcomes of all other studies and observations on this subject. The Pelvicenter group is significantly more satisfied with therapy than is the pelvic floor training group. Pelvicenter: Alleviation of urinary incontinence symptoms; significant reduction in the urge to urinate; improvement in individual well-being Pelvic floor training: difficult to apply independently; moderate therapeutic success.

Additional beneficial effects

The Pelvicenter affects the whole body core. Therefore, not only does the therapy train the pelvic floor muscles, it also activates the muscles in the lower abdomen and back, the buttocks, thighs and the (dorsal) layer of the rear hip muscles. Physical exercise is the only other way of achieving these effects. Pelvicenter training therefore has an extremely positive influence on the entire coordination of the supporting apparatus.



Frequency settings above 35 Hz release adhered fascia, above all in the lumbar region (loin area) as well as in the gluteus maximus and medius (lumbago muscles). The high frequencies can even counteract muscle hardening and trapped nerves within the field of action.

Benefits for the operator

In many cases it is difficult to conduct classic pelvic floor training with the patient. It is common to encounter patients displaying a reluctance to cooperate or poor discipline when attempting to comply with the prescribed training regime in home settings.

The QRS Pelvicenter radically changes this situation. The attending physician or therapist can directly control therapeutic success, instead of being forced to rely on unpredictable patient discipline or willingness to comply.

Benefits for the patient

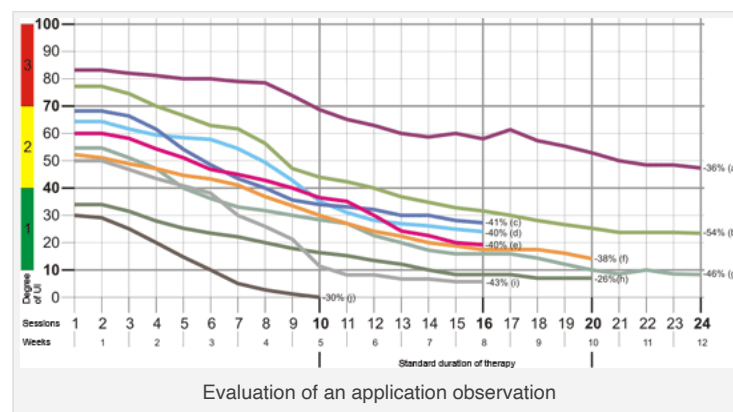
The patient takes a seat in the QRS Pelvicenter and can feel the muscles working without experiencing any pain. The patient is not required to do anything. In this way they can do nothing wrong. Patients are not required to undress, and can complete the therapy sessions in their everyday clothes.

Predictable duration of treatment

2–3 therapy sessions of 15–20 minutes are recommended per week. A positive therapy outcome requires 10 to 20 treatments. But the targeted medical strengthening therapy of the pelvic floor musculature ensures that many patients observe a noticeable alleviation of symptoms after just a few sessions.

Prospects of success

Trials and observation studies have demonstrated extremely high patient satisfaction, in addition to an excellent responder result. Assuming the problems are caused by weakened pelvic floor muscles, it is reasonable to assume that a significant improvement or complete alleviation of symptoms will occur.



The analytical data was provided by commercial Pelvicenter users in a variety of countries. The average age was 58.5, and all the individuals studied were female. The indication in all cases was stress incontinence. The therapeutic frequency was 3 sessions per week. The duration of therapy was 10 sessions in one case, 16 sessions in four cases, 20 sessions in two cases and 24 sessions in three cases. A reduction in UI severity by at least one grade was achieved for all patients. Therapeutic success and progress were higher in the first 10 to 16 sessions than in the following treatments.

Available data

The available data is unequivocal with regard to the treatment of urinary incontinence. The mean success rate is approximately 70%. There are currently three studies available, in addition to our own observation studies.

For an overview of the studies, visit the page >Research >[Studies](#). We will gladly send you a copy of the original study upon request. To obtain your copy, send an email to office@qrs-international.com and enclose legitimisation credentials with your message.

Side effects

- Muscle pain

There have been sporadic cases in which patients have experienced muscle pain following a Pelvicenter therapy. Like classic muscle training, a moderate muscle strain, i.e. intensity setting should be selected at the start of Pelvicenter therapy in order to prevent any possible muscle pain.