

Pilates – A Teachers' Manual

V. Geweniger
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Pilates – A Teachers' Manual

Exercises with Mats and Equipment for Prevention
and Rehabilitation

With 781 figures and 24 tables

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Foreword

During the late nineteenth century and until the beginning of World War I, “La Belle Époque” – the “Beautiful Era” – was spreading over Europe. This period was characterized by optimism and new technological and medical discoveries. Only in retrospect was it named La Belle Époque and considered a “Golden Age” when compared with the horrors of World War I. A profound cultural revolution in health and wellbeing developed during this period, amongst an exceptional group of people in Europe and especially in Germany. Influenced by Friedrich Jahn, a philosopher, historian, and theologian, and Per Henrik Ling in Sweden, a revision of ancient Greek gymnastics was in the making. Complementing and balancing this new approach, individuals such as Leo Kofler, Elsa Gindler, Rudolf Laban, Hede Kallmeyer, Bess Mensendieck, and Joe Pilates worked on new ethics and principles for body movement. They especially focused on the science of self-awareness through exercise.

Joe Pilates was one of many Europeans intertwining physical practice and mental discipline. Trainers and dancers started to explore the relationship between mind, body, and brain. In common with Alexander, Cohen, Bartenieff, and later Feldenkrais, they shared an urgent desire to educate their clients about internal awareness and sensitivity. This was combined with a focus on moving consciously, to improve control.

The emergence of this movement from the Belle Époque could very well have been a new conceptualization of human individuality, a realization that as individuals we have a unique responsibility and potential. Ultimately, these concepts of self-awareness were imaginative steps toward increased awareness of the body, and the acceptance of personal responsibility for one’s own deeds and actions (Hanna 1986).

This inspiring movement of mindful bodywork would not only have a big influence in Europe and Germany. The tide of transformation washed around the world, reaching as far as North America. In the 1960s, the revolution in human and cultural change and taking responsibility for one’s individuality was identified exclusively as a typically American phenomenon. However, the roots

of this movement lay in Europe, and particularly in Germany.

The work of Joe Pilates and his partner Clara centered on teaching awareness, proper breathing, and alignment of the spine and strengthening of the torso muscles. After the couple moved to New York, they gained followers from the local performing arts and dance community almost immediately, experiencing this new wave of change. George Balanchine and Martha Graham were early supporters, and later many influential disciples followed. Under the guidance of Pilates and his wife, a somatic conception of “one’s self” emerged. Joe Pilates was a devoted reader of philosophical texts, and repeated the mantra of Friedrich von Schiller: “It is the mind itself which shapes the body.” This emergent process of integrating movement with awareness and consciousness may have been captured best by the words of psychologist Roger Sperry, when he accepted the Nobel Prize in 1981:

- » The events of inner experience, as emergent properties of brain processes, become themselves explanatory causal constructs in their own right, interacting at their own level with their own laws and dynamics. Learning to recognize an internal proprioceptive pattern is not essentially different from learning to recognize the visual outlines of a map.
- » The whole world of inner experience, long rejected by twentieth century scientific materialism, thus becomes recognized and included with the domain of science. (According to Hanna 1986).

Finally, in the late twentieth century, science picked up and incorporated ideas about motor control, feed-forward and feed-back mechanisms, and the significance for exercise and training of patients.

Blending the wisdom of the past, and particularly the Pilates method, with new insights and present-day research in one book is not simple. Contemporary research now expresses clear interest in human motor behavior and what distinguishes the behavior of a healthy person from a chronic patient. At the heart of this research is the realization that dissimilar motor tasks lead to other patterns of

motor behavior. High load tasks combined with a high level of unpredictability seem to favor a stiffening response from the motor system, to guarantee sufficient strength and stability. Low load tasks, with higher predictability, induce a more controlled strategy. The latter strategy is characterized by sharing the load, guarding and steering unilateral movement, as far as possible, from the same side as well as from the inside outward. By contrast, a rigid strategy often creates stiffening and cramping of musculo-fascial systems, leading to bilateral muscle activity. These dual motor pattern mechanisms are not necessarily distinguished in black and white; in fact, there is a large gray zone. Under normal circumstances, the dual pattern is a splendid reaction for executing different tasks successfully. The literature, however, shows that chronic patients often tend to adopt a continuous rigid strategy even when executing low-load and high-predictability tasks. Many patients alter normal motor patterning in such a manner that the sensory and motor cortex of the brain rewrites the neurosystem. The consequence is that the neurosystem uses its qualities of plasticity to create a maladaptive compensatory pattern. The new pattern becomes habituated, and we have learned from new studies that even ligaments and fascial structures adapt very quickly to this new situation. These structural, muscular, and fascial changes could hamper a quick recovery.

Of course, many people with modest complaints who are still functioning rather well show signs of altered motor patterns, especially as a result of our present day lifestyle. Emotional processes also play a big part in this scenario. Fear of movement, for instance, opens up existing preprogrammed motor patterns in the brain, particularly in the periaqueductal gray (PAG) matter in the brain stem. Fear can also be the result of receiving sometimes (very) confusing information about your body from therapists, trainers, and doctors: “Yes you clearly have defined arthrosis of your spine and our test reveals that you are highly unstable in your pelvis and you have some ruptured ligaments and the scan shows ... etc.” Such messages unfortunately create great fear and consequently change motor patterns. Words are very powerful. We should therefore be careful how we relay information to our clients and patients about their condition.

It seems clear what Joe Pilates wanted to achieve: a valid training method to bring patients and clients back to their own inner and outer strength and con-

fidence. For many centuries there has been a strict separation of mind and body. The Pilates method promotes awareness of movement from an inner perspective, and promotes movement from the inside out. This methodology is indeed confirmed and verified by recent data. Like Pilates, many years later Thomas Hanna promoted self-awareness as the main key of analyzing your own body. Hanna pointed out that we have two irreducible viewpoints for observing our clients and patients. There is external observation, analyzing clients “bodies” from the outside, from a “third person’s” point of view. In contrast, the first person viewpoint derives from inner awareness and the perception of what the client feels and registers about him/herself. Using this insight, we should work and focus on input/awareness training simultaneously, but also promote inner awareness of clients so as to achieve what Hanna called “first person regulation” of the body!

Pilates encouraged the execution of effective movement patterns from the inside outward, which is at the heart of present-day discussions about core control. Indeed, how can we use the legs and spine effectively as levers from the pelvis, when at that moment the pelvis is not sufficiently externally stabilized on the hips and internally self-braced by locking the sacrum into the iliac ring? This is of course a discussion of anticipatory feed-forward reactions (see the work of Paul Hodges, Jaap van Dieen and Jacek Cholewicki).

Self-bracing and force closure of the pelvis and lower spine are preconditions for using the legs and spine effectively. When forces increase under more challenging conditions, we have to adapt the level of self-bracing for the different components of the kinematic chain. How can we use levers such as the arms or legs during throwing and walking? By starting with optimal conditions, to force-close the system from inward (center) to outward. If this is the case, should it not be a necessity to recognize that the arm, spine, and leg musculature and fascia are not in fact separate, but actually work together?

Here you may notice again that topographic anatomy is very helpful, and a necessary tool for understanding the body. Unfortunately, it does not explain how the body works as a functional unit. Fortunately, a logical functional approach was already at the center of what Joe Pilates considered effective training.

The present book on the Pilates method clearly illustrates concepts that help us to understand these enigmas. In particular, it represents the wisdom of many practitioners, trainers, and dancers from the past who have built up a tremendous body of intelligent models. The book clearly explains how Joe Pilates developed his methodology by focusing on whole body movements, breathing, concentration, centering, precision, and balanced muscle-fascia development.

Recently, mind-body researcher Herbert Benson from Harvard University underpinned these insights, by showing that slow, deep, diaphragmatic breathing is central to most mind-body techniques. Proper breathing is an effective antidote to stress, restoring rigid strategies to controlled strategies. Alice Domar, a colleague of Benson, shows that mind-body techniques, combined with proper breathing, can significantly reduce symptoms of severe PMS as well as anxiety.

I am delighted to recommend this book to all practitioners, dancers, therapists, and of course Pilates trainers. The authors of this book have put a lot of energy and determination into blending new information for the benefit of their readers. They have woven many contemporary insights into their text, creating a modern interpretation of the Pilates methodology. It is also nice to see a German book honoring the enormous wealth of intelligent ideas from the past, particularly the work of Joe Pilates

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Foreword

Pilates is a wonderful way to bring body and mind into harmony. I have personally benefited from Pilates training for years. Because of its diversity and complexity, an appropriate program can be created for any age or fitness level. As an orthopedic surgeon, I recommend Pilates to my patients, because stability and mobility can be achieved without promoting tension.

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Preface

This “manual” for physiotherapists, physical education teachers, and trainers is the first textbook of its kind, and provides an ideal foundation and guide to accompany certification in modern Pilates. We have brought together the documents and descriptions that form the traditional basis of the Pilates method as well as modern concepts in sports science and movement studies.

From daily practice to daily activity – clearly explained and easy to apply – the fundamental methodology of training, analysis, and didactics is linked to the exercises themselves.

The most important mat exercises are clearly presented, together with their theoretical background and implementation on the Pilates equipment.

Our intention has been to consciously transcend barriers, dogmatic thinking, and the restrictive definitions that inhibit the vital development of the method. This book seeks to define a common vocabulary, thereby facilitating communication between teachers and the exchange of ideas with specialists in related fields.

The positive effects and impact of Pilates training, for decades taught successfully to millions of people, leaving them free of symptoms, happier, and more balanced, should be more accessible as a result of this clarification of the fundamental, underlying principles.

When asked, “Why does one do Pilates?” a student of Joseph Pilates once replied, “To master the challenges of life and to enjoy life!” In this sense, we hope to contribute to making the lives of Pilates trainers and their clients more interesting and comfortable, by helping them to become free of symptoms.

Joseph Hubert Pilates had a comprehensive, unified understanding of his method and the exercises he developed, as well as great dedication. We hope that this book does justice to his legacy, but also reflects the extent of his vision. We consider it essential to present not only exercises on the mat, but also on the Pilates equipment. It is only in a synthesis of all the elements of the Pilates training concept that the exercises can unfold to their full effect.

The Authors

Mühlthal and Cologne, Spring 2014

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- Our thanks also goes to Joanna Mountifield for the committed and competent translation.
- Finally, thanks to our families, who have encouraged and supported us!
- A very special thanks to Joseph Hubert Pilates and his partner Clara Zeuner, for their life's work. They have enriched and changed our lives.

The Authors

Mühlthal and Cologne, Spring 2014

The authors



Alexander Bohlander

Alexander Bohlander, born in 1964, is a distinguished expert in Pilates training both in Europe and beyond. Having begun his career as a physiotherapist in 1991, Alexander qualified as an alternative health practitioner in 1995, and graduated in the study of osteopathy in 2005. He was cofounder of the first German medical practice to integrate Pilates training into treatment and rehabilitation, when he opened his practice in Dormagen in 1998, incorporating a small Pilates studio. In 2000, he established the Polestar teacher training company in Germany, and soon became a leading figure in Pilates throughout Europe, offering training courses taught by visiting lecturers from the USA. In 2002 Alexander opened the SPRINGS health center in Cologne, which offers the full spectrum of Pilates training as well as a range of holistic therapy. In 2009 and 2013 expanded with two new locations in Cologne. Today Alexander Bohlander travels worldwide as a lecturer, and his holistic approach has significantly shaped the development of Pilates training in therapy and prevention.



Verena Geweniger

Verena Geweniger was born in 1951, and following her graduation in sports studies, taught in German schools for foreigners in South America. It was here during the 1980s that she discovered and learned to love the Pilates exercises, taught at a ballet studio and known simply as "floorwork." After returning to Germany, she opened in 1987 a functional gymnastics studio near Darmstadt. Through Ken Endelman (California), the manufacturer of the Balanced Body Pilates equipment, she met Alexander Bohlander in 1997 and went on to take part in the first Pilates teacher training course he offered in Cologne, taught by Elizabeth Larkam and Brent Anderson. In the following years, Verena deepened her already extensive knowledge of the Pilates exercise repertoire, staying with Alan Herdman in London, with representatives of "classical" Pilates in New York, and at the Polestar Education Center in Miami. In 2001, she took part in the founding of the Pilates Method Alliance (PMA) and taught her Pilates floor program for the PMA. Verena has been instrumental in establishing and developing Pilates in Germany, and her work has appeared in numerous publications. Her initiative led to the founding of the German Pilates Association in 2006, and to this day, she remains the dedicated president of the organization.

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