

# The Pilates method: history and philosophy

.....

**Penelope Latey**

Until the mid-1980s the Pilates Method of exercise was little known outside the world of dance but has grown in popularity rapidly in the last decade: coming out of obscurity. Pilates method is much more than a list of exercises. It is a way of connecting and conditioning the whole being-body and mind. This article traces its history in context and examines the initial principles of the method, with the beginnings of modern developments. © 2001 Harcourt Publishers Ltd.

## **Joseph (Hubertus) Pilates: 1880–1967**

Joseph Pilates ran an exercise studio in New York from the late 1920s to the 1960s. He wrote two books on his method, and some films of his work are available, but otherwise his method has been passed down via apprenticeship training from teachers who were themselves apprenticed to him. It has been said that Pilates ‘did’ and Clara, his wife, ‘explained’. He had no formally structured teacher-training course, and only since the 1980s has there been any formalized dissemination of his work. First came the book *The Pilates Method of Mental and Physical Conditioning* by P. Freidman and G. Eisen, published in 1980. Later on, a number of Pilates associations and other groups of Pilates instructors around the world produced training courses of varying length, quality and depth.

Joseph Hubertus Pilates was born in 1880 near Dusseldorf in Germany. He was apparently a sickly child, suffering from rickets, asthma and rheumatic fever. There was concern at one time that he might have tuberculosis. He was probably taken to health spas and given exercise regimes that were popular at the time for people in poor health. Long before the advent of antibiotics and other successful drugs, and before the life-saving procedures of modern medicine, to stay alive meant one had to remain fit and strong. Regular exercise was one of the few ways available to combat ill health. Health spas and exercising for health had become a common part of German life.

The industrial revolution had brought more sedentary lifestyles and an increased density of living which led in turn to increases in contagious diseases and infant mortality, together with a general decline in health. Exercise for health

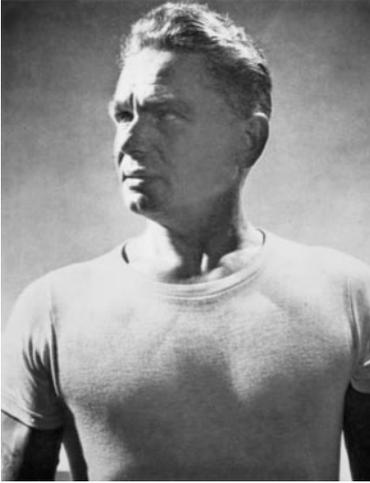
### **Penelope Latey**

Pilates Practitioner, Senior Lecturer and course coordinator of the Grad. Cert. in the Pilates Method at the University of Technology Sydney (UTS), Australia. Council Member and ex-president of the Australian Pilates Method Association (APMA). This paper is modified from an annotated excerpt from the book *Modern Pilates* written by Penelope Latey. Due to be published, September 2001, Allen and Unwin, Australia.

Correspondence to: P. Latey  
1 Toongovah Road, Waverton 2060,  
NSW, Australia.  
E-mail: latey@tpg.com.au

Received April 2001  
Revised June 2001  
Accepted July 2001

.....  
*Journal of Bodywork and Movement Therapies* (2001)  
5(4), 275–282  
© 2001 Harcourt Publishers Ltd  
doi: 10.1054/bwmt.2001.0237, available online at  
http://www.idealibrary.com on 



**Fig. 1** J.H. Pilates. Photo from *Balanced Body USA*.

was gradually introduced to the German population through the development of gymnastics. Modern gymnastics, derived from ancient Greek gymnastics, were developed by the German Friedrich Jahn early in the nineteenth century. His system started with a programme of outdoor exercise and later progressed to the use of equipment that he developed. The aim was to improve fitness and strength, primarily for men. Jahn had studied theology, history and philosophy at university and linked fitness with national pride and well-being.

At the same time, Per Henrik Ling in Sweden developed another form of gymnastics (*Gymnastik*) emphasizing rhythm and fluidity of movement. (This came to be called first *callisthenics*, then *physical education*, in the United States.) Initially *Gymnastik* exercise was primarily utilized by women. Promoted from the late nineteenth century as a way of improving strength, endurance, flexibility and coordination, it aimed to augment the body's general well-being by placing controllable, regular demands on the cardiovascular system with coordinated breathing. P. H. Ling also developed

Educational Gymnastics: 'learn to place our body under our own control' and Medical Gymnastics: 'influencing movements to alleviate or overcome the sufferings that have arisen through abnormal conditions' (Wide 1906).

Both forms of modern Gymnastics became so popular that they were included in the normal curriculum in many German schools before the turn of the century. The re-introduction of gymnastics for the 1896 Olympic Games undoubtedly provided an extra boost.

As a child Pilates worked so hard at improving his fitness, and at body-building, that by 14 years of age his muscles were so clearly defined that he was posing for anatomy charts. As a teenager he enjoyed diving, skiing and gymnastics. Eventually he became a professional boxer and taught self-defence. His work in the field of exercise led him to an interest in yoga, karate, Zen meditation and the exercise regimes of the ancient Greeks and Romans.

In 1912, at the age of 32, Pilates went to England, where he worked as a boxer, a circus performer and a self-defence instructor. At the outbreak of World War I he was interned as an enemy alien. In camp he refined his ideas about health and body-building and encouraged all camp members to participate in his conditioning programme, based on a series of exercises performed on a mat. Apparently, during the influenza pandemic of 1918, no one in the internment camp died from the disease – this was considered extraordinary (Friedman & Eisen 1980). Many more thousands died in that epidemic than lost their lives in the Great War.

Towards the end of the war Pilates was transferred to the Isle of Man, where he applied his knowledge to help rehabilitate the war injured. Here Pilates began experimenting with bed springs,

attaching them to the ends of the beds to allow the patients to work with resistance while still bed-bound. He had realised that doing exercise with resistance helped patients recover muscle tone more quickly (Sparrowe 1994). This later led to his development of the 'cadillac', a four-posted bed with various springs and hanging bars, and the 'universal reformer', a sliding platform with springs on which the patient/client lies down, sits or stands. The removal of the fight against gravity in the supine position allows tension to be regulated and the spine and pelvis to be aligned. His work expanded to include various other pieces of apparatus, which in turn inspired additional mat exercises.

After the war Pilates returned to Hamburg in Germany where he refined his equipment and methods. During this time he met Rudolph van Laban, the originator of Labanotation, the most widely used form of dance notation. This was Pilates' introduction to dance. Later the dance world was to be an area of fruitful cross-fertilization for Pilates. At the same time P. H. Ling's ideas on *Gymnastik* were developing a following in Germany, with Hede Kallmeyer in Berlin and Bess Mesendieck in Hamburg both training teachers. With the release in 1925 in Germany of a film on *Gymnastik*, this more gentle form of physical education with breathing and movement gained a broader public profile (Johnson 1995).

Pilates migrated to the USA in 1926, a time when many Germans fled their country. His success as a physical trainer had attracted the attention of the German Army and it had requested his services as a trainer, a request that Pilates did not wish to respond to. Another factor contributing to his decision to migrate is believed to be his work with Max Schmelling, the German boxer. Schmelling began his career

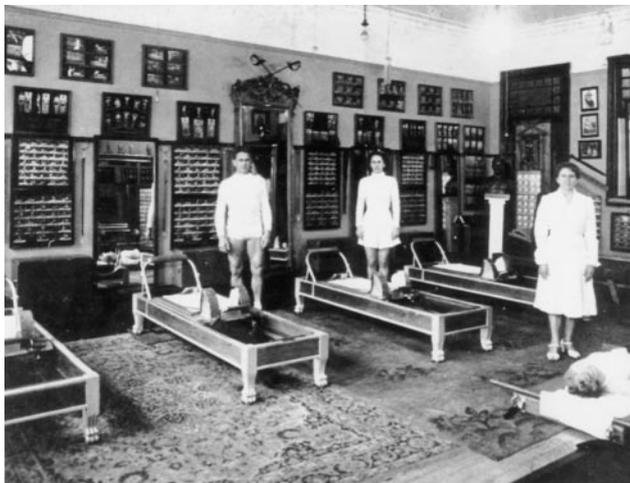


Fig. 2 J. H. Pilates New York Studio. Photo from Balanced Body USA.

in the early 1920s, becoming the European light-heavyweight champion in February 1928. He then left for the USA to become world heavyweight champion in 1932 (Mullan 1999). Schmelling's manager is believed to have helped fund Pilates' studio on 8th Avenue in New York so that the boxer could continue training with him (Winsor 1999).

On the boat to the USA Pilates met his future wife Clara, a nurse, who would work with him at the studio. Calling his method 'Contrology', Pilates established his American studio just before the beginning of the Great Depression. There is no information on how the Depression affected the studio but it must have been extremely difficult after the October 1929 stock market crash.

In 1934 he was able to publish a small book about his method. *Your Health* set out his philosophy and ideas about good health and how to achieve it. This little publication exuded an element of determination and frustration. Pilates referred to 'Business men, both during and after the [first world] war, were so busily engaged in piling up fortunes, that they entirely neglected to devote the necessary time to safeguard their

health...saw them pass the remainder of their shortened and spoiled lives, either in constant pain or in mental suffering, or both' (Pilates 1934).

Pilates must have been appalled at the suffering during the Great Depression and frustrated that so few were following his advice or using 'contrology'. As a recent immigrant among many new immigrants, with particular ideas about sustaining good health and happiness, Pilates found it extremely hard to establish a new profession when many were in the throes of bankruptcy, unemployed and facing starvation (Townsend 1994).

The 'balance of body and mind', he claimed, is the only route to good sustainable health. He went on to deplore some of the common practices of the day in regard to looking after babies and children. He explained the roots of ill health from childhood onwards as poor care and lack of exercise. The end of his booklet becomes a long advertising essay espousing his method of exercise, good hygiene, and explaining why one should use his specially designed beds and chairs that are 'posturally correct' (Pilates 1934). He ended the booklet by voicing his dismay that some of

his advice and work was being used without due acknowledgement; something the Pilates community still has problems with today.

Even though Pilates had experience with strength and fitness training, gymnastics, boxing, and instructing for self-defence, in the long term it was dancers who worked with him most enthusiastically. Pilates became a friend of Ted Shawn, a dancer who, with Ruth St Denis, founded the Denishawn Dance Company, then went on to help develop the dance centre at Jacob's Place in the mid-1930s. Shawn welcomed many different forms of movement, and there Pilates taught mat classes and outdoor training. This early style of Pilates was orientated towards strength work and reminiscent of boxing training.

Films of Pilates' later work show a more flowing style with a similar movement quality to modern dance (Video: J. Pilates, Physical Mind Institute 1995). Ron Fletcher was one of first well-known dancers to use 'Contrology'. Pilates' ability to return dancers to the stage after back and leg injuries gained him an excellent relationship with Hanya Holm, Martha Graham and the choreographer George Balanchine, who all used and recommended him (Eisen & Freidman 1980). By the end of the 1940s he had developed a significant clientele among dancers.

Pilates' second book, *Return to Life Through Contrology*, co-authored with W. J. Millar, was published in 1945. In it he sets out the development of his philosophy and a list of exercises to follow and practise at home. He wrote no other books.

By the time Pilates died in 1967, a number of studios based on his method had been opened, catering to its extensive following in the American dance world. During this time his wife Clara had worked side by side with Pilates and after his

death continued to run a studio until her own death in 1977.

Pilates was extremely possessive of his method of exercise; even though he taught about half a dozen instructors, he was reluctant to entrust it to others and remained the sole master at his studio. Except for *Your Health and Return to Life Through Contrology* nothing comprehensive was published about his method until after he and Clara had died. In 1980 *The Pilates Method of Physical and Mental Conditioning* (Eisen & Friedman) was published. This book clearly sets out, with some refinements, his philosophy and principles, and the mat exercises of his method.

Pilates taught his assistants by apprenticeship. His early assistants tended to move away and open their own studios, Ron Fletcher and Carola Trier among them, but some, such as his later assistant Romana Kryzanowski, stayed with him. Eve Gentry, another early apprentice, moved away to pursue dance then returned to the method, bringing with her clearly organized gentle exercises that more easily applied J. Pilates' principles, now known as 'pre-Pilates' work as well as a new approach to some of the principles. Some of Pilates' early followers merged his work with their own, and some students took pieces of the method, sometimes only the exercises without understanding the principles, and developed their own style, though still labelling it 'Pilates'. There are consequently many different interpretations of the Pilates method, each subtly altered by new understandings of the human body or influenced by one of the many new movement styles that had developed since the beginning of the twentieth century.

Today, not only dancers and athletes use the Pilates method extensively, with modifications and variations to some of the exercises, but the general public is beginning

to use it for post-acute rehabilitation and general fitness.

### **Traditional Pilates philosophy and principles**

The exercise system that Joseph Pilates developed mixed the practical movement styles and ideas of gymnastics, martial arts, yoga and dance with philosophical notions. Pilates was a great reader and was fond of quoting the German philosophers Johann Schiller: 'It is the mind itself which shapes the body' and Arthur Schopenhauer: 'To neglect one's body for any other advantage in life is the greatest of follies [sic]', two principles he incorporated into his beliefs (Friedman & Eisen 1980). The amalgamation of philosophy, exercise (movement) and the performing arts as we see it in the Pilates method has been common in Germany from the nineteenth century onwards. Pilates was only one of a number of Europeans to develop and interrelate the concepts of physical practice and mental discipline. Pilates' 1934 booklet *Your Health* was produced by the 'Prof. Pilates Health Studios'. In the Introduction he said:

*Perfect Balance of Body and Mind, is that quality in civilised man, which not only gives him superiority over the savage and animal kingdom, but furnishes him with all the physical and mental powers that are dispensable for attaining the goal of Mankind – health and happiness. The purpose of this booklet is to transmit in a simple form, the causes of present day ill-health and immoral conditions, and the resultant effects which prevent the average human being from attaining this physical perfection – man's inherited birthright.*

(Pilates 1934)

Knowing Pilates' background one can understand much of his determined belief in the rightness of

his method. He berates the 'quack' cures promoted by 'proprietors of patent medicines and manufacturers of mechanical apparatus, massaging belts, rowing machines, nostrums, serums and other injections' (Pilates 1934), possibly referring to other early exercise regimes, patent cure-alls from 'snake oil' salesmen and early forms of unsuccessful inoculation. He believed that wellness began in childhood and that 'The first lesson is correct breathing: properly instructed how to draw the abdomen in and out at the same time holding their breath for a short time... then they should also learn how to fully deflate the lungs in exhaling' (Pilates 1934).

The remarkable health sustained by the detainees in the internment camp during World War I, especially in the face of the influenza pandemic, the consequences of the use of mustard gas-observed in the war injured on the Isle of Man, plus the prevalence of tuberculosis, his own asthma (all conditions that threaten the lungs), must have focused Pilates' mind on breathing problems. He was probably also aware of Leo Kofler, the Delsarte system and Else Grindler and her followers, whose systems all worked with breathing (Johnson 1995).

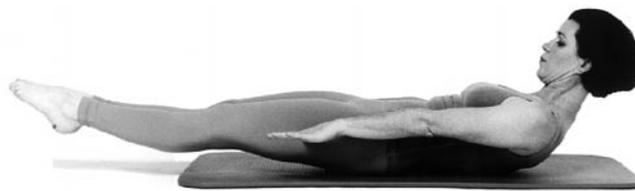
Pilates felt that most people were overdressed and overheated and did not wash properly. On hygiene he emphasized "'Hardening" of the body. Fewer clothes the better. Cleanliness of the skin. Massaging with brush' (Pilates 1934). Does this hark back to his early childhood when he was improving his health?

On posture and breathing: 'Drawing in of stomach and the throwing out of the chest. The spine of every normal child is straight. The back is perfectly flat' (Pilates 1934). Pilates believed that a healthy adult should also have a flat spine. Overweight problems, particularly around the abdomen, 'have their origins in the "miss-carriage" of the

spine' and poor posture affects good health.

There were no exercise descriptions in *Your Health*, however. Pilates most definitely wanted clients to attend his studio. Around this time Pilates drew up his designs for a bed and chairs. These were never manufactured, though his Wunda chair is of a similar design to his armchair. Eleven years later he published *Return to Life Through Contrology* (hereafter referred to as *Return to Life*), written by himself and W. J. Millar. In this 1945 book Pilates describes his work as 'Contrology', sets out the philosophy behind his work and, for the first time, describes and illustrates a set of 34 exercises to do at home (Fig. 3). The explanation of the philosophy that underpins his exercise system is more comprehensive. 'Contrology is complete coordination of body, mind and spirit'. Pilates has added spirit to his earlier definition, aiming to encompass the whole person, including their emotional well-being. 'Contrology restores physical fitness. [it] develops the body uniformly, corrects wrong postures, restores physical vitality, invigorates the mind, and elevates the spirit'. His guiding principles included 'concentrating on the purpose of the exercises as you performed them' (Pilates & Miller 1945).

Pilates enlarged on his ideas about correct breathing in *Return to Life*: The exercises: 'stirred your sluggish circulation into action and to performing its duty more effectively in the matter of discharging through the bloodstream the accumulation of fatigue-products created by muscular and mental activities. Your brain clears and your will power functions' (Pilates & Miller 1945). He believed that vigorous exercise was important, as this achieved a 'bodily house-cleaning with blood circulation', and that breathing correctly helped your



**Fig. 3** The Hundred. Photo from P Lately. Published with permission from Allen and Unwin.

body remove harmful germs. 'True heart control follows correct breathing which simultaneously reduces heart strain, purifies the blood, and develops the lungs'. Pilates felt it was vital to breathe both deeply and fully: 'Squeeze every atom of air from your lungs until they are almost as free of air as is a vacuum' (Pilates & Miller 1945).

Stretching and rolling the spine (with the chin pressed tightly to the chest) was also important. He claimed that this helped to correct posture by flattening out the curves in the spine and straightening out the body. Pilates believed that the back should be flat 'like a plumb line' (like a baby's). Thus in performing floor exercises, the full length of the back was always pressed firmly against the mat.

Pilates also thought that one always had to articulate/move evenly throughout the spine and that one needed to exercise all the muscles: 'Developing minor muscles naturally helps to strengthen major muscles' (Pilates & Miller 1945).

The exercises were described in detail, with breathing, movements and aim carefully noted, and illustrated with many photos. Words commonly used in describing how to do the exercises include 'Keep legs (tensed, knees locked) 'arms rigid, shoulders locked', fists clenched, 'snap-kick' (Pilates & Miller 1945).

Films which show Pilates working and teaching reveal his extreme

vigour and fast dynamics, matching his written descriptions of how to move. These facts, and his very definite philosophy, suggest that he was a very robust man physically and mentally and that even to attempt his original exercises one would have to be equally robust. One would also have to ignore the normal curves of the spine, and the hazards of over-bracing the body.

After Pilates and Clara's deaths, his method, as described by Friedman and Eisen in 1980 in *The Pilates Method of Physical and Mental Conditioning* has subtly changed. The fundamental principles remained the same, but new ones were added, and the original principles clearly delineated. Most importantly, the concept of 'center', which Pilates called the 'powerhouse', was named and carefully explained. The range of exercises was enlarged and developed, with exercises structured into progressive levels, and with the beginnings of a move away from very extreme effort.

Development has continued since then, and there are now what are termed 'pre-Pilates exercises' as well as a whole range of Pilates-based exercises with further variations and modifications. Some of the exercises have been simplified to ensure connection with the body from the inside out, making the method more accessible. The principles have been refined to reflect current understanding of applied anatomy, physiology and kinesiology.

## Some developments of the traditional principles

In the 1970s and early 1980s many more Pilates studios opened in America, and the method went offshore when Alan Herdman brought it to London and started his studio at 'The Place' (London School of Contemporary Dance). Although the method was still only taught by apprenticeship, the method was now influenced by Friedman and Eisen's clear descriptions of how to exercise correctly by following six fundamental principles.

1. **Concentration:** To do the movements properly you must pay attention to what you are doing. No part of your body is unimportant; no motion can be ignored. You must concentrate on what you are doing. All the time.
2. **Control:** The reason you need to concentrate so thoroughly is so you can be in control of every aspect of every movement. Not just the large motions of your limbs but the positions of your fingers, head and toes, the degree of arch or flatness of your back, the rotation of your wrists, the turning in or out of your legs.
3. **Centering:** Our first requirement in concentrating on our bodies and gaining full control of them is a starting place: somewhere to begin building our own bodily foundation. Consider the part of your body that forms a continuous band, front and back, between the bottom of your rib cage and the line across your hip bones. We call this your 'center'. The center is the focal point of the Pilates Method (Fig. 4).
4. **Flowing movement:** Nothing should be stiff or jerky. Nothing should be too rapid or slow. Smoothness and evenly flowing



**Fig. 4** The Center. Photo or drawing from photo P Latey. Published with permission from Allen and Unwin.

- movement go hand in hand with control.
5. **Precision:** Concentrate on right movements each time you exercise or else you will do them improperly and lose their value (Pilates stated).
6. **Breathing:** Full and thorough inhalation and exhalation are part of every Pilates exercise. Pilates saw forced exhalation as the key to full inhalation. 'Squeeze out the lungs as you would wring out a wet towel...Soon the entire body is charged with fresh oxygen from toes to fingertips....According to Eisen and Friedman (1980), Ramana Kryzanowska and other American Pilates Method teachers use the following variations, 'Breathe in on the point of effort... and out on the return or exhalation'. This rule is sometimes modified to.... 'If you are doing something that squeezes your body tight, use the motion to squeeze air out of your lungs and inhale when you straighten up'.

So concentrating, controlling movement, coordinating full and deep breathing and centering the body in order to move with an economy of effort are crucial aspects of the method. The quality of each movement is emphasized rather than encouraging mindless repetition. By

avoiding strain or pain through attention to detail, precision and flow of movement is sustained. Breathing is an important element of the method, to heighten breathing awareness, to help focus and use the centre and to increase oxygen intake. Friedman and Eisen also described ways of 'finding' the body. In discussing relaxation, for example, they noted that because there is an emphasis on control, concentration and precision there is a tendency for clients to tense up 'using far more effort than is necessary; in essence they are overcontrolling. The cure for this is to relax the muscles while maintaining enough tone to hold the position you want' (Friedman & Eisen 1980).

On lengthening and strengthening they note that Pilates always wanted the client to use a full range of movement, encouraging 'lengthening out the body as you worked it' – thus the client always lengthened away from the center. Friedman and Eisen move away from 'locking' the joints to 'straightening' and stretching out the joints 'long and thin' to find maximum extension (Fig. 5).

Turning to the notion of the straight spine: Pilates was keen on stretching through the spine and neck. His original instructions for creating a flat back include the words 'navel to spine', 'spine to mat'



**Fig. 5** The Double (leg) Kick. Photo from P Latey. Published with permission from Allen and Unwin.

and 'press the base of the skull into the mat'.

Friedman and Eisen repeated these, with 'chin to chest' and 'stretching the neck', which flattens the whole spine. Getting the client 'sitting up out of your hips' continued the straight spine idea with 'squeezing buttocks so tight that the thighs turn out' (Friedman and Eisen 1980), encouraging the pelvis to tilt posteriorly. All this was aimed at creating a flat back, which we now know is not a good thing.

Friedman and Eisen also included 'correct' foot positions, avoidance of hunched shoulders and articulating the spine one vertebra at a time: which was also controlled with pinched buttocks.

The understanding that improvements will take time, commitment and consistency, and that 'one properly done movement is worth any number of sloppy ones', is continued in their book, with the proviso that pain and strain are to be avoided.

Friedman and Eisen's principles can be summarized as concentration, control, centring, flowing movement, precision and breathing. As the first comprehensive record of the method, aside from Pilates' own publications, their work is invaluable.

## Towards present-day Pilates

There are now almost as many variations to the Pilates method as

there are people who practise it. The different styles can be roughly divided into a few different types. Up until the 1980s there were three distinct styles: American West Coast, American East Coast and British. By the early 1990s, with the profession gathering momentum, distinctions of place had changed to the broad categories of hard, soft and rehabilitative Pilates, and Pilates-based exercises (The Method Forum Physicalmind Institute 1996). Current styles can be divided into two basic schools: the repertory approach and modern Pilates.

The repertory approach closely follows the original exercises as set out by Pilates himself, and later by Friedman and Eisen. This more traditional method uses set exercise sequences and set numbers of repetitions, with only a small amount of modification for different body types or problems. It continues with the 'spine to mat' flat back approach and 'squeezing the buttocks' tight for assisting postural control (Gallagher & Kryzanowska 1999). It is fairly fast and dynamic right from the start of the programme.

The repertory approach has recently been exploited by some, and turned into the replication of a list of exercises taught to large groups, by briefly trained people. It is certainly quicker (a weekend to 10 days training), and more lucrative, to train teachers based on the traditional repertoire. Large group classes lend themselves to that style, but it is only a productive approach if the client already has good body awareness and flexibility, no injuries or problems, and is happy to build strength in set areas rather than carefully working specific muscles. Otherwise this approach can be potentially dangerous.

Skilled Modern Pilates practitioners, on the other hand, use Joseph Pilates' philosophy and modified principles with a more gradual introduction to movement, via 'pre-Pilates' exercises; and include many adaptations and developments that connect with our improved knowledge of how the body works. We are further influenced by other movement disciplines, by developments in psychology and by theories of emotional factors and how the mind works. While the overall pattern of movements may be similar each body will have different needs.

So, in Modern Pilates the initial emphasis is on understanding the body and improving awareness, connecting breathing, getting the feel of the right muscles working and the over-worked areas being de-stressed. The exercises are always tailored to the clients' particular needs, body types, weaknesses and



**Fig. 6** The Leg slide. Photo from P Latey. Published with permission from Allen and Unwin.

strengths. The foundations of breathing, alignment and working from the centre are emphasized initially. A broader range of exercises is then introduced to assist in applying the principles of the method, encompassing other movement styles and gradually working towards a more dynamic approach.

Selected traditional exercises are utilized only when appropriate breathing, correct alignment and muscle control have become second nature to the body. Growing interest in the method has been generated by this broadening of approach: by changes in the general public's need to look after themselves, and by ageing baby-boomers becoming injury-conscious in the wake of the aerobic exercise boom.

Unfortunately the 'famous people syndrome', where those in the public eye are admitting that the Pilates

method helps them look after their bodies, has tended to over-inflate the profile of the profession before high quality standards have been established. Nevertheless a sound modern interpretation of the method can be applied safely to both fit and unfit people, and ranges from post-trauma rehabilitation to fitness for the ordinary or elderly body; and can be extended to the fine-tuning of elite athletes and dancers.

Present Day Pilates and the Modern Method will be discussed in a subsequent article in JBMT.

#### REFERENCES

- Friedman P, Eisen G, Miller WJ 1980 *The Pilates Method of Physical and Mental Conditioning* Doubleday and Company, New York
- Gallagher S, Kryzanowska R, 1999 *The Pilates Method of Body Conditioning* BainBridge Books, Philadelphia

- Johnson DH 1995 *Bone, Breath and Gesture* North Atlantic Books, Berkeley
- Mullan H 1999 *The World Encyclopaedia of Boxing* Carlton Books, London
- Pilates JH *Your Health*. First published 1934. Reprint 1998. Presentation Dynamics Inc, NV
- Pilates JH, Miller. *Return to Life through Contrology*. First published 1945. Reprint 1998. Presentation Dynamics Inc, NV
- Townsend D 1994 *The new Penguin Dictionary of Modern History 1789–1945* Penguin Books, London
- The Method Forum (previously the Pilates Forum) 1991–2000. *Journal of The Physicalmind Institute* (previously the *Institute for the Pilates Method*). Santa Fe, NM
- Videos of J.H. Pilates and Eve Gentry, from the Physicalmind Institute 1993–1995 (previously the *Institute for the Pilates Method*). Santa Fe, NM
- Sparrowe L 1994 *Yoga Journal*, USA
- Wide A 1906 *Medical and Orthopedic Gymnastics*. Funk and Wagnalls Comp, New York
- Winsor M 1999 *The Pilates Powerhouse*. Perseus Books, New York