

Reflex 47

The Kieser Training Magazine



Super Slow® – 15 seconds for each repetition

Two 30-minute training sessions per week are enough to achieve a gradual increase in muscle mass and strength. So, what should you do if progress stagnates? To exploit your strength potential in full, try one of the intensification methods such as the Super Slow®: it's training in slow motion.

The principle is simple. With Super Slow, you reduce the weight by 10% – 20% and each exercise is done more slowly: "Lift the weight slowly for about 10 seconds until the muscle is fully contracted. Hold for about 1 second and then lower the weight in about 4 seconds", explains James O'Grady (27), physiotherapist at Kieser Training London since November 2012. O'Grady started in October 2010 with Kieser Training Melbourne, Australia, where he was part of the team developing a new Kieser Training facility. The rhythm is 10-1-4 seconds rather than the customary 4-2-4 seconds. This method was developed in the 1980s in the United States by Brenda and Ken Hutchins.

Super Slow® – super intensive

"Doing each exercise more slowly increases its intensity. It's almost impossible to cheat, i.e. to take advantage of any build-up of momentum during

the exercise. As a result, the increase in tension in the relevant muscle fibres is even higher than with the traditional Kieser Training method." O'Grady recommends this method for those who find they have been unable to increase the weight on one or several machines for some time. "Reduce the weight and do 3 sessions using the Super Slow method. After that, it's normally possible to achieve a weight increase using the standard 4-2-4 seconds."

Slow down and achieve success

This intensive method of training is also recommended for those seeking to reach maximum strength within the shortest possible time. 4 – 6 repetitions are possible within an exercise duration of 60–90 seconds. As usual, you do the exercise until you cannot complete another full repetition but with this method, you reach that point sooner: "The brain usually says

enough is enough before the muscles do. This is a protective mechanism that prevents excessive strain. However, in most cases you can still do an incomplete repetition", stresses the therapist. It's important to be cautious about increasing the weight. A 5% increase is sufficient if you can do the exercise for more than 90 seconds.

Adds variety to everyday training

"We recommend that customers start with the 4-2-4 method because a high degree of discipline is required for Super Slow training on your own", says O'Grady. However, the Super Slow® method can provide the muscles with a new challenge and also improve training quality. "You concentrate more intently on the exercise and are much more aware of the muscles being worked – that in turn improves quality." Another advantage is that joints are protected because the weight is lower and each exercise is deliberately



James O'Grady

Photo: © Darren Cool

done very slowly. This makes the Super Slow® method suitable for those with joint problems. More on intensification methods in our next edition.

To find out more about increasing intensity by slowing down, speak to one of our instructors.

Dear Reader,



even the muscles of Kieser Training instructors start to decline on reaching the age of 25 if not given adequate stimuli on a regular basis. Evolution is relentless; it does not spare our staff and so we train in the same way as all other customers. In this edition of Reflex we embark on a new series "Instructors and their favourite machine", where staff speak for themselves – starting with Janine Scherbik, whose favourite machine is the F3.

"You are what you eat" is something we all have heard many times. In a new column called "The building blocks of strength", the German nutritionist and author Professor Nicolai Worm will discuss the role of nutrition in muscle build-up and decline.

If you sleep for 8 ½ hours, you lose more fat than if you only sleep 5 ½ hours. Dr Marco Caimi explains why, in our new column "Tips".

"Man grows on resistance." In this single sentence, Werner Kieser, the company founder stresses the need for personal responsibility. In his new column "Kieser's Corner", he argues that ideas also thrive on resistance.

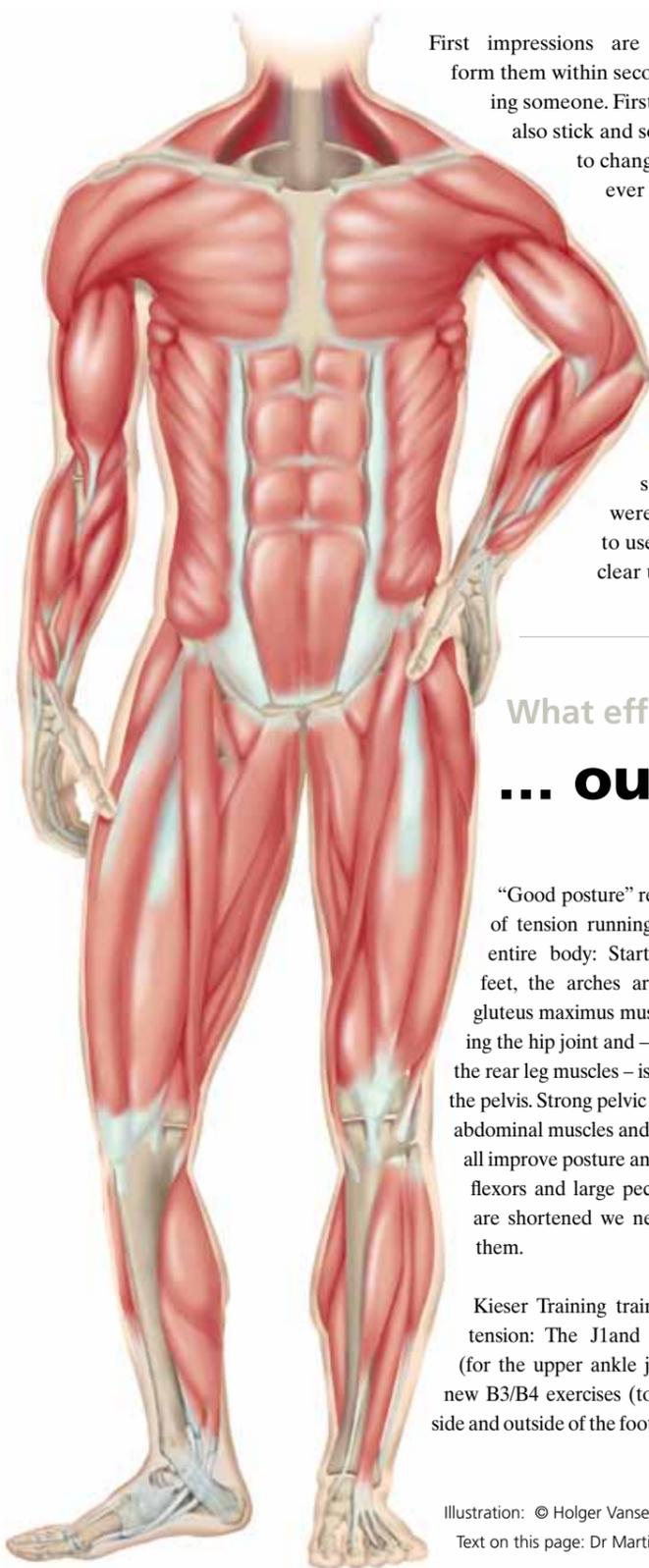
Enjoy!

Patrik Meier
COO Kieser Training AG Zürich

KIESER
TRAINING

STRENGTH FOR HEALTH

“First impressions count”



First impressions are crucial: we form them within seconds of meeting someone. First impressions also stick and so it's difficult to change them however hard we may try in future.

That makes it tough! However, in prehistoric times this was essential for survival as we were not yet able to use language to clear up misunder-

standings. We needed to decide whether somebody was a “friend or foe” and we had to do it instantly. It was literally a question of life or death. And today? It's still about success or defeat. Will I get that job, achieve my heart's desires or will I be thwarted by my rival?

So, what factors determine those all-important first impressions? First and foremost, it's our body language, e.g. eye contact, facial expression, posture and body tension. These factors always were and still are crucial in determining whether that first encounter is good or bad. That initial positive or negative resonance is what determines our effect on our

partner, the boss or friends and acquaintances.

Based on the results of research to date, what we say only accounts for a maximum of 7% of our chance of success. Much more important is how we say it (38%) and our demeanour as we say it (55%). Our actual body-weight as displayed on the scales is less important than our idea of beauty might suggest. We may be slightly overweight but if we stand tall, we create a much better impression than someone who is lean but has a poor posture.

Posture

Kieser Training improves basic tension, posture and self-awareness. This has a positive effect on body language and therefore on successful communication.

What effect does Kieser Training have on ...

... our posture?

“Good posture” requires an arc of tension running through the entire body: Starting with the feet, the arches are intact. The gluteus maximus muscle is stretching the hip joint and – supported by the rear leg muscles – is straightening the pelvis. Strong pelvic floor muscles, abdominal muscles and back muscles all improve posture and so if our hip flexors and large pectoral muscles are shortened we need to stretch them.

Kieser Training trains this arc of tension: The J1 and B8 exercises (for the upper ankle joint) and the new B3/B4 exercises (to raise the inside and outside of the foot) not only im-

prove the foot's ability to roll correctly on hitting the ground but promotes powerful acceleration and sure-footedness. Strong feet and calf muscles support the foot arches at every turn and so create a resilient base.

The A1 and B6 strengthen the gluteus maximus muscle and also straighten the pelvis. It is supported in this work by strong biceps muscles of the thigh, which in turn are strengthened on the B5 and B7 machines. The new A5 exercise strengthens the often weak pelvic floor muscles. The F1, F2 and A2 strengthen the abdominal muscles and the C1 and F3 build up the strength of the latissimus dorsi muscle and the back extensors. Finally, the C3, C5, C7 or

E5 give the shoulders the strength they need to promote good posture.

An awareness of the body and the way it moves combined with sufficient sleep, our current mood and other psychological factors all have an influence on our posture and explain why it changes constantly. Our posture will vary depending upon our state of mind, body and soul. That is why posture is so important in communication.

Kieser Training makes body language much more expressive. Strong muscles improve our posture and this in turn has a positive effect on the world around us. A trained body has a much larger “vocabulary” than one that is limp with a hunched back and drooping shoulders. By doing Kieser Training, you are in fact improving that “basic vocabulary”.

Illustration: © Holger Vanselow
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Ask the expert

Dr Martin Weiß on strength and body language

Why is posture so important in communication?

Body language and the posture underpinning it play a crucial role in successful communication. My body language sends out clear messages relating to my basic attitude and mood. It tells the person to whom I am speaking whether I am feeling aggressive or anxious, whether I seem happy or sad. In this respect, we can only understand – or not understand – body language in a cultural context. Body language does not exist in splendid isolation but works in tandem with language and voice.

And what is the importance of strength here?

If my muscles are well-trained, I am

stronger; I have a higher basic tension, improved muscle balance and better posture. What is more, I can easily correct my posture and fine-tune it. I am also better able to sustain it in the longer term. You could also say that if my body is stronger and more dynamic, I am better able to use finely nuanced body language. My body language has a much greater “vocabulary”, which I can use to good effect.

So more strength makes us better at playing the “keyboard” of non-verbal language?

Exactly! However, first of all I need to appreciate and understand the effect of my personal body language. If I am not aware of it and express it

in a completely automated way, I am more or less at its mercy. However, if



Dr Martin Weiß

I develop a greater awareness, I can target the way I deploy my body language, e.g. turning to face the other person, straightening my back and shoulders, tensioning my spine and keeping my hands open. I can seek to ensure that the signs given out by my body language match those of my words.

And that decides whether my performance succeeds or not?

My comments will be given greater attention and are more likely to be heard if my basic attitude is interested,

open and if I display curiosity. That is what decides success or failure – both at work and in my personal life. However, successful communication demands much more than strength. For example, it requires technical, language and social skills.

If I display a positive external attitude, can I influence my inner attitude?

I am sure you can as it's not a one-way process. Strength training improves self-awareness and kick starts self-confidence. It acts like an amplifier. In other words, if I am aware of my external attitude, this strengthens my inner “standing” and I am better able to maintain a good attitude.

Instructors and their favourite machine



As an instructor, you develop a particular affinity to certain machines during the course of your work. For me, it's the F3. It's my long-term

favourite and has been a permanent part of my personal training for 13 years. It goes like this: I adjust the shin pad and foot plate. I select the weight.

I then slide over the pelvic roller pads onto the seat and move into the start position. Then with a slow and controlled movement I straighten my upper body until I reach the stop position. I hold this position and then slowly – vertebra by vertebra – return to the start position. I repeat until I can't continue. After that, it's simply a case of letting the exercise do its job! What I particularly like about this exercise is that I feel almost immediately that it's doing me good. I reckon that I must have challenged my lower back extensor muscles at least 1,152 times on the F3. My strength is well above average and my spine has the stability and flexibility it needs. I certainly need it, whether for running, doing the housework, enjoying the rough-and-

tumble with the kids or explaining the F3 to customers at Kieser Training. If the F3 causes irritations, it's often caused by a dysfunction of the

ileosacral joints. So, if you experience pain during or after the exercise, please consult our doctor.

F3

Janine Scherbik, Instructor, Kieser Training
Hamburg- Winterhude, Germany

- The F3 provides effective and targeted training for the lower back muscles (erector spinae) as the stronger auxiliary muscles are immobilised.
- The cam on the machine adapts the training resistance to the natural strength curve of the muscles and corrects intramuscular imbalances.
- Training over the entire range of motion (ROM) restores mobility.
- Stronger back extensors provide stability to the spine and protect the intervertebral discs.
- The F3 protects against wear and tear and helps combat back pain.

Tip: Slim as you sleep

Dr Marco Caimi explains why sleep is important if you are trying to lose weight.



Photo: © Fotolia.com

It seems that adequate sleep plays an important role in losing weight. Re-

searchers at the University of Chicago studied ten overweight men and wom-

en who completed a four-week diet in a research centre. During the first two weeks, the participants slept for 8 ½ hours and in the last two weeks for only 5 ½ hours. Researchers found that during the longer sleep period, participants lost more fat whereas during the shorter period they lost more muscle. In other words, the composition of the weight loss varied depending upon the sleep duration. During the longer sleep period, 50% of the weight loss was fat whereas in the shorter period it was only 25% and the participants lost considerably more muscle mass. Although the results still need to be backed up by

further research, we already know the importance of maintaining muscle mass in order to maintain any weight loss. However that is precisely the problem with diets: Instead of losing fat, you mainly lose muscle mass – a disaster as you are shrinking the only organ that can actually burn fat. When you return to your normal diet, you run the risk of the dreaded yo-yo effect. In addition to a diet low in carbohydrates and high in protein, I recommend endurance training and strength training. Trained muscles increase the basal metabolic rate, i.e. your energy requirement at rest and even during sleep. Provided

you don't go to bed too soon after a carbohydrate loading, your body will release the growth hormone somatotropin as you sleep. Somatotropin is the highest fat-burning substance in the body and also builds up and regenerates muscle. In addition, the stress hormone cortisol is reduced – a substance that particularly encourages the accumulation of dangerous abdominal fat.

The building blocks of strength

What role do diet and nutrients play in muscle build-up? Starting in our next edition, Professor Nicolai Worm, a well-known nutritionist, author and founder of the LOGI method, will be looking at this subject.

Professor Worm, you founded the LOGI method. What lies behind it? LOGI, as a nutritional concept was developed at the end of the 1990s by endocrinologists in the Medical Faculty of the University of Harvard (Boston, USA). Its aim was to bring about permanent weight loss and treat metabolic disorders. LOGI stands for "Low Glycaemic and Insulinemic Diet", a nutritional method designed to promote low levels of blood sugar and insulin release. It involves switching to low-sugar and low-starch foods and contains all you need – based on current scientific knowledge – for healthy nutrition. It is not a diet but a life-long method of eating geared to the needs of humans and with a high nutrient but low energy density.



Professor Nicolai Worm, born 1951, studied Oecotrophology (Family and Consumer Sciences) at the Technical University in Munich and obtained his doctorate at the University of Gießen in Germany. From 1979 to 1985 he worked at the German Institute for Social Medicine, Prevention and Rehabilitation in Tutzing on the Starnberger See as a research assistant, primarily looking at the epidemiological issues relating to "diet and heart attacks". He then lectured on sports nutrition at the Trainer Academy of the

German Sports' Federation in Cologne, the pharmacy chambers in Bavaria and North Rhine and at the University of Innsbruck in Austria. From 1996 to 2007, Worm was a member of the Interdisciplinary Centre for Human Sciences (HWZ) at the Ludwig-Maximilians University in Munich. He was a scientific advisor to the low fat and low carb initiative in Germany called "Leichter Leben in Deutschland". He is currently a scientific advisor to the German Wine Academy in Mainz. In 2009 he was appointed a professor at the University of Applied Sciences – Prevention and Health Management (DHfPG) in Germany.

On what is the method based?

It is based on the consumption of essential nutrients, low-starch vegetables, salads and fruit combined with protein-rich foods. It favours high quality fats, particularly monounsaturated fats and foods with a good ratio of Omega 6 to Omega 3 fatty acids. The method minimises increases in blood sugar levels and insulin releases and reduces blood lipids and prevents the formation of fatty deposits.

This turns established dietary recommendations on their head?

The current nutritional pyramid is based on recommendations dating back some 100 years when the population was much poorer and reliant on cheaper sources of energy. Despite their diet people remained slim because they had to do hard

physical work and so consumed the carbohydrates. With increasing mechanisation, this type of diet has become counterproductive. Combined with a lack of exercise and eating too many foods rich in carbohydrates, it has caused health problems such as diabetes, etc. Today, two thirds of the population are overweight and have health problems. The LOGI concept is, therefore a therapeutic concept and the LOGI pyramid is a therapeutic pyramid designed especially for the millions who are overweight and susceptible to the associated metabolic disorders. However, it is basically an ideal daily diet for anyone – unless you have a kidney problem and in this case, you will need to reduce your protein intake.



Kieser's Corner

Ideas also thrive on resistance.

The BSA School of Health Management in Cologne (Germany) is now offering the basic training course for Kieser Training instructors. What impresses me about BSA is the professional and efficient way they deliver the training. I also like the fact that it is a private company. The course, introduced by BSA at the start of 2013 is compulsory for all German Kieser Training staff. In spring it is even due to receive state accreditation from ZFU, the national office for distance learning in Germany.

In principle, state accreditation is a step in the right direction and it might also sound impressive. However, it's no reason to sit back and relax. "State recognition" must not be allowed to stifle innovation and we should be mindful of this risk from the outset. The concept developed by Kieser Training is both stringent and coherent. However, it was not welcomed with open arms by the "experts" sitting in the secure environment of

"approved colleges and universities". Quite the reverse!

When Arthur Jones, Ellington Darden and I developed the concept in what were virtually anarchic conditions, we were outsiders and as such were derided and subject to constant attacks by the media. The concept is now so successful that its health benefits dwarf those of all other concepts "accredited" to date. The fact that young college lecturers in German-speaking areas now accept it – more than 40 years after it was first developed – is major progress.

Nevertheless, the delay in its acceptance reminds us of the phrase accredited to Max Planck: "Progress occurs when the authorities die"; this creates space for those who do not have a life's work or mistakes to defend.

Patrick Sandford ...

... is a Theatre Director. He recently directed the opening production of the new St James Theatre, London (England). He is Artistic Director of the Nuffield Theatre, Southampton and has worked as a Director several times in South Africa and Australia. He has been training at Kieser Training London for about 5 years.

DOB: 08/06/1952
Place OB: Paris, France
Lives in: London
Profession:
Theatre Director

What inspires you?

I love watching really highly skilled people in any field, painting, plumbing, politics, physical training ... I get a kick out of human skill.

What is a perfect day for you?

Working hard with other creative people on a project we all love. Especially perhaps in an ancient outdoor amphitheatre beside a warm, boisterous sea?

What does "Quality of Life" mean to you?

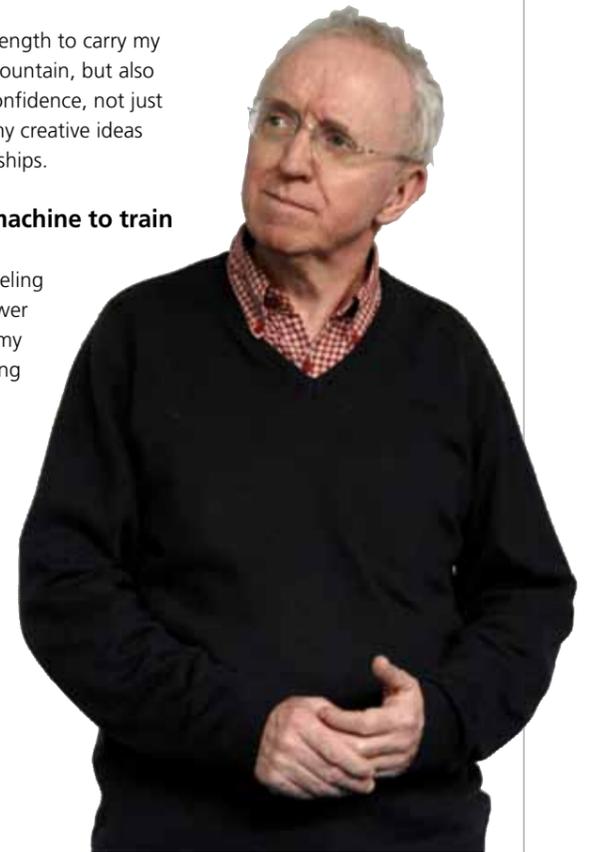
I think Quality of Life is about having the right amount of time and the right circumstances to do things. I feel I am significantly responsible myself for my own quality of life. This is not always easy.

What do you need strength for?

I certainly need strength to carry my rucksack up the mountain, but also for my own self-confidence, not just physically, but in my creative ideas and in my relationships.

My favourite machine to train on is ...

... F3. I love the feeling of power in my lower back – as though my whole being is being supported.



Profile

Training matters – for staff and customers

Kieser Training has one priority in common with any world-class company. The importance it puts on staff training.

Being a worldwide service provider with its own unique approach and equipment it's vital that all the staff, from London to Melbourne and all points in-between, have the same thorough and structured training.

The Kieser Training way – professional personalisation

The instructors and therapists at Kieser Training have to go through a tough training process. It's only through this discipline that they can tailor programmes for each individual customer's needs. Flexibility only comes through detailed knowledge.

"All our staff must have the same understanding so they can select the right equipment for a customer's needs and instruct them correctly", says Marcel Haasters, MD of Kieser Training London and responsible for staff training. "Staff have to know our process and the science behind it so they can tailor a programme for customers and monitor and adapt over time." Consistency of care is vital. To avoid any confusion and deliver the



Marcel Haasters, MD Kieser Training London

best results, customer care over time is a priority. This ethos has to be understood by all staff.

Training takes time

The business invests considerable time, effort and money into its staff

training. However well qualified anyone joining Kieser Training is, everyone goes through a substantial, 2-stage training programme. Academic and practical elements are covered with the trainee expected to put in a lot of personal study time.

"It's demanding", says Haasters, "but it's one of the key factors that makes our method effective." In addition, the trainee is mentored throughout. No one is given individual responsibility with a customer until they have successfully completed their studies.

World class classes

To guarantee worldwide excellence, every Kieser Training facility conducts this staff training programme. But who trains the trainers? There's an education centre at the German headquarters but you're also likely to hear voices from all over the world at the Mornington Crescent facility in Camden Town. Here, new franchisees learn the rigorous standards that Kieser Training demands.

"We don't just train worldwide staff in instruction and medical therapy", says Marcel Haasters. "We also give them technical training and teach them best management practices. With new franchises opening all the time, it's vital that we maintain the standards our customers expect wherever the brand appears."

He's right of course. When you are dealing with peoples' long-term health and fitness, every member of staff has to be an expert. So when you meet your Kieser Training instructor or therapist you can be sure they really know their stuff – training theory, machines and of course muscles.

