BeBalanced! ACTIVE AGING
FITNESS AS LIFE CONCEPT

UPGRADE YOUR LIFE
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BeBalanced! Active aging is a training program that can be performed in a group and also as personal training. The motor skills of endurance, mobility and power as well as coordination are trained. Coordination as the basis of the capacity to keep the body in balance is especially emphasized in BeBalanced! Active aging.

AIREX® Balance products

- The AIREX® Balance-pad Elite and the AIREX® Balance-beam are used in BeBalanced! Active aging. Both are outstandingly suitable for sensomotor training and promote balance.
- The products consist of more than 90% air and provide a warm, soft feeling under the feet. The degree of instability of the additional devices is just right to permit the timid participant to exercise on them.
- Balance-pad Elite and Balance-beam are light and can also be carried and lifted by older participants. Their use is unbelievably simple: lay it on the floor and get started.
- The AIREX® Balance-beam consists of the same material as the AIREX® Balance-pad Elite and is especially important for walking training. It is narrow and long and may be used as a balancing-beam!
- The AIREX® mats are all characterized by their unique quality. They can easily be rolled up, are always pleasantly warm even in cold rooms, have an antibacterial surface and are moisture resistant.
THE ADVANTAGES OF BeBalanced!
ACTIVE AGING

- BeBalanced! Active aging acts against age-related changes in the body.
- Trained persons are better performers than untrained ones.
- BeBalanced! Active aging prevents many diseases of the motor apparatus and cardiovascular-circulatory system.
- With BeBalanced! Active aging you can start even after the age of 70 and older, because the degree of fitness can be improved at any age.
- BeBalanced! Active aging is good for body AND mind.
- BeBalanced! Active aging makes you more relaxed and well balanced.
- BeBalanced! Active aging lengthens your independence.
- With BeBalanced! Active aging you get to meet other people.

BeBalanced! Active aging

Concern for the health is not a question of age
Our old-age concerns usually begin when we are quite young. At least financially. It is all the more surprising that, as before, little is done for the biological concerns of aging. Only a few actually think about making their life active and thereby accepting personal responsibility for lasting health and well-being. The loss of strength after the age of 30 is a reality, and inactivity assures that both the physical and also the intellectual performance capacity atrophy.

Why age plays no part
It is not a new discovery that the old are constantly getting younger. The entrepreneurial spirit, modern clothing, and openness to new things mark the present life of most elderly people. Nevertheless, many questions arise: Should I start playing sports at my age? Obviously, this newly acquired Zeitgeist has still not found its way to movement. To remain independent as long as possible, to be able to manage everyday life without assistance, is everyone’s wish. But at the same time it is forgotten that this has to do with physical and mental fitness.
A question that is not easy to answer. There are, of course, different “old ages”, such as, e.g.:

**Psychological old age**
- depends on fate, events and social factors
- may involve a process of maturation
- is dependent on the degree of intellectual advancement during one’s lifetime

**Sociological old age**
- depends on the ability to act socially, which is influenced by social factors

**Biological old age**
- is determined by the diminishing ability to overcome injuries and functional disturbances of the body

**Calendar old age**
- is determined by the birth date and
- the organisation of social processes

You are as old as you feel. How true, because only the calendar age is beyond our ability to influence.
Three primary factors are involved here:
• The performance capacity diminishes
• The convalescence capacity is reduced
• The adaptability diminishes

The performance capacity of the body changes with age in the cardio-circulatory system, in the support and motor apparatus, in the nervous system and in the sensory organs:

**Cardio vascular system**
- Heart
  - Myocardial tissue shrinks
  - Less blood per beat
  - Reduced max. HF
  - Poorer cardiac perfusion
- Vessels
  - Sclerosis and less elastic
  - Increased plaque on vessel walls
- Blood
  - Smaller blood volume
  - Elevated cholesterol content
  - Smaller vascular diameter
- Blood pressure
  - Elevated values
- Lungs
  - Fewer alveoli
  - Less air is exchanged
  - More breaths per minute

**Support and motor apparatus**
- Bone
  - Lower bone density
  - Increased brittleness and fragility
- Cartilage
  - Joint cartilage worn away
- Tendons and ligament
  - Elasticity lost
- Muscles
  - Reduced muscle mass
  - Reduction of muscle fibre responsible for fast movement
- Tendons and ligament
  - Elasticity lost
- Muscles
  - Reduced muscle mass

**Nervous system and sensory organs**
- Brain
  - Becomes lighter
  - Nerv cells become fewer
  - Transmission speed between nerv cells diminishes
- Eyes
  - Pupils get smaller
  - Flattening of the lens
- Ears
  - Osification of cochlea
  - Reduction of nerve endings in the ear
- Skin
  - Loss of fluids
  - Loss of elasticity
The aging process therefore changes the human body, and the risk of diseases increases tremendously. At the same time health is something that we would like to have and often wish for others. However, it is necessary to do a little more to obtain or restore health. Wishing alone is not enough. Rather, an active concern is needed, an acceptance of responsibility.

Health pertains to the general condition of body and mind, their integrity and vitality. This does not mean merely the absence of disease or injury but rather the full functional capacity of all parts of the body. “Being healthy means, despite occasional illness, to be able to fully utilize your capacities and even when old, to live vigorously, actively and happily.” (Insel & Roth 1985, p. xvii, übers. Philip G. Zimbardo).

Today it is known that the state of the body is related to the state of the mind. Psychological and social factors play an important part in physical health. Thus it is more probable that a person will remain healthy if he has habits that serve his health. Movement is one such habit.

The BeBalanced! Active aging Trainer has a broad spectrum of movements to offer. In this way it supports the positive habits and promotes health. But movement is only one component out of many for remaining as healthy as possible. We must deal with far more questions, such as:

- What other living habits contribute to prevention the onset of diseases?
- What psychological conditions promote health?

The BeBalanced! Active aging Trainer is committed to inquire about the lifestyle, hobbies and stress perceptions of its clients. In this way he can get a more accurate picture of the actual condition of the client. In group training it is naturally difficult to go into the individual requirements of each single person. This functions better in individual/personal training. However, the target group 55+ is better understood if one also asks about rather private matters — perhaps before or at the end of a training lesson. The topic of stress management is becoming increasingly more significant for this age group. Since stress can very seriously impair the health on the physical plane, the BeBalanced! Active aging trainer must learn what the stressors are, therefore, the things that generate stress in the client.

While physiological stress reactions always take place in the same and predictable way, emotional stress reactions are learned and dependent to a high degree on our interpretation of the world and our abilities to deal with it.

The BeBalanced! Active aging Trainer should always remain on the movement level (unless he is psychotherapeutically educated) and attempt to relieve stress by physical exercises.

When the world of the client gets out of balance due to stress, the balance exercises of the BeBalanced! Active aging program will help.

The BeBalanced! Active aging lets the client
- discover strengths,
- maintain good posture
- stand with both feet firmly on the ground
- recover balance.

Once the client experiences these advantages of BeBalanced! Active aging he will continue to engage in sports and keep himself healthy. Health means well-being, well-being means free of pain. Living without pain means more energy, more energy means more performance capacity. If you can perform more, you are less susceptible to stress. Less stress means being balanced, and being balanced means body and mind are in balance.
Maintaining balance is an ability that decreases strongly with age without training. Additional stress situations increase the danger of no longer being able to maintain balance. Falls and their consequences are a complicated topic and are among the unsolved problems of medicine. A single cause is practically never responsible for the fall in isolation; as a rule falls are caused by multiple factors. Almost every area of human life and every area of organic function may be the cause of falls.

Falls persistently impair the quality of life: The victim of a fall often experiences a deep-seated shock, has pain and his independence is threatened.

The risk of falling is high. 40% of all over-65-year olds fall at least once a year. More than 50% of falls have no effects on the health, but 10% cause serious injuries and 5-6% lead to fractures.

It is curious that 60-80% of all falls occur throughout the day at home, usually in the living or sleeping area, followed by falls in the kitchen and bathroom. The assumption that falls occur chiefly in a strange environment and at night appears to be refuted by these numbers. But if the safe and well-known home milieu offers no protection against falls, how high is the risk outside of your own residence?

The frequency of falls and their consequences are alarming. However, medicine unfortunately only repairs instead of preventing. It only intervenes when serious consequences have already occurred. For the patients this is highly unsatisfactory and economically unacceptable. The treatment of falls is only successfully completed when they no longer occur.
The Deutsche Ärztezeitung reported:

«Modified strength training in combination with sensomotor training, according to the results of studies, would reduce the number of falls, according to Mayer and his colleagues of the Department of Rehabilitative and Preventive Sports Medicine at the Freiburg Uniklinik (Geriatrie Praxis 10, 2004, 12).

The Freiburg sports medical practitioners recommend resistance training in which muscle mass is increased by overcoming or exerting force against one’s own body weight. Exercises of the trunk and extremity muscles and stability training under ordinary conditions should also be included.»

Strength training is easily implemented both in the course and equipment sector and is on the agenda in every fitness studio in workout lessons. It gets more difficult with stability training under ordinary conditions. Here, things such as lifting kerbstones, going somewhat off the beaten path, spinning/rotating rapidly, etc. must be practiced. If this is combined with training in walking and posture and relaxation training for the treatment of reactive depressive states, then an integrated program for fall avoidance is created. **BeBalanced! Active aging** is such a program.

**BeBalanced! Active aging** must be subdivided into different phases. Only when the participants have mastered one phase can they advance to the next phase. It is advisable to set up temporarily closed courses (e.g., over 18 units) to avoid having new participants constantly coming in, so that the speed of learning is inhibited. Learning on stable and unstable foundations is important.

**First step: Awareness**

It is necessary for the participants to have a picture of their balancing capacity. In the first lesson the following test should be conducted. It lasts approx. 30 minutes. Two participants make one test. One is the person tested, the other is the tester. The test person must carry out several tasks. Different standing positions are adopted, different floor conditions created. The eyes are closed, then opened. The arms lie close to the body or are pulled in tightly. (The test form is found on www.fitnesspaedagogik.de). The result of the test is recorded by the trainer and the test repeated 3 months later.
The following basic principles should be observed, the exercises may vary.

**Phase I**

**Static stabilisation**

**Step 1 – on both legs**
- fixed mat/pad, arms in neutral position
- fixed mat/pad, arm position alternating: e.g., wide squat position + arms at side, front, up
- unstable mat/pad, arm positions alternating: e.g., on Balance-pad Elite or Balance-beam
- unstable mat/pad, whole body movements
- unstable mat/pad, extra equipment
Phase I
Static stabilisation

Step 2 – on one leg
- fixed mat/pad, arms in neutral position
- fixed mat/pad, arm positions alternating
- unstable mat/pad, arm positions alternating
- unstable mat/pad, whole body movements
- unstable mat/pad, extra equipment
Phase I
Static stabilisation

Step 3 – 1 leg moving
• fixed pad, arms neutral, move leg forward, sidewise, backward
• unstable pad, arms positions alternating, move leg forward, sidewise, backward
• unstable pad, move leg forward, sidewise, backward, use upper body and arms,
• unstable pad, move leg forward, sidewise, backward, use upper body and arms, extra equipment
Phase II  
Stabilisation when lowering height

- fixed pad, no external resistances
- unstable pad, no external resistances
- whole body movements, no external resistances
- whole body movements with external resistances
Phase III
Dynamic stabilisation

- dynamic throwing and catching, on one leg and both legs
- dynamic throwing and catching with stair climbing
- dynamic throwing/catching with stair climbing and eyes-on-the-ball
- hopping from one foot to the other
  - in all 3 planes of movement
  - with external resistances
  - with unstable mat/pad
**Phase IV**
**Reactive stabilisation**

- jump squat jumping on both legs with final stabilisation upward, downward
- jump squat jumping on one leg with final stabilisation upward, downward
- horizontal jump squat jumping on both legs with final stabilisation
- horizontal jump squat jumping on one leg with final stabilisation
- proprioceptive jumping exercises (e.g. with cross on floor)
Life becomes more worth living as a result of the independence gained through the fitness training. But what are the risks? Athletic activity is risky for unhealthy people. If the sport is incorrectly managed it may cause overloading and injuries. These risks can be lowered or even eliminated.

The elderly person who is starting Fitness should therefore get special care:
- The trainer is the most important point of reference in the training and must therefore be able to answer all questions about proper training, patiently and in detail.
- He must be able to empathize with the usually much older clients, understand their problems and take their needs seriously.
- He should know how he must deal with health problems.
- By his above-average communications skills the trainer provides an ambience of confidence and good will.
- A large repertoire of movements for many-sided lesson pictures and providing fun during training are elementary for the BeBalanced! Active aging trainer.
In personal training all balancing exercises can be demonstrated and corrected especially well. The client trains in a secure framework since the personal trainer is standing by to hold him fast.

**Material**
AIREX® Balance-pad Elite, AIREX® YogaPilates 190 mat.

**Initial position**
standing on AIREX® Balance-pad Elite, legs slightly apart, both arms raised above head, head slightly to the rear, looking at your hands.

**Exercise**
Close eyes and hold for 30 seconds.

Important: The sternum must be pushed forward and up.
**Material**
AIREX® Balance-pad Elite, small ball.

**Initial position**
Standing on Balance-pad Elite.

**Exercise**
Trainer holds the ball in his hand and moves in a semicircle at roughly eye level of the client from one side to the other. Client follows it with his head and gaze.
**Material**
AIREX® Balance-pad Elite,
AIREX® YogaPilates 190 mat.

**Initial position**
Standing with both heels on Balance-pad Elite, toes on mat.

**Exercise**
Trainer holds the ball in his hand and moves it in front of the client in different directions. Client follows it with his head, eyes and both arms.
Material
2 AIREX® Balance-pad Elite, 1 Step, 2 dumb-bell disks, 1 AIREX® YogaPilates 190 mat, 1 Balance-beam.

Initial position
The above-mentioned material is laid out in succession. The client starts on the wooden floor in front of the 1st Balance-pad Elite.

Exercise
The client walks along the exercise "street" and is guided by the trainer. If the path is known, the client closes his eyes.
BeBalanced! ACTIVE AGING
AS A GROUP COURSE

BeBalanced! Active aging can be differently configured for use in groups:

BeBalanced! Active aging circle training
The exercises first have to be demonstrated. This takes about 10 minutes. It is recommended that the individual stations be identified by photographs so that the exercises are easier to remember.

The warm-up is joint isolation, standing and in full body movement in place, such as side-to-side, marches, etc. for approx. 10 minutes.

Each exercise is performed for 1 minute, a 30 second changeover.

The circle is performed twice.

The last 10 minutes (of a total duration of 60 minutes) are used for stretching.
Exercise 1

Material
1 AIREX® YogaPilates 190 mat, 
1 AIREX® Balance-pad Elite.

Initial position
On the AIREX® Balance-pad Elite, 
legs slightly apart, toes pointing 
slightly outward, knees loose, pelvis 
tipped, sternum forward and raised, 
arms crossed in front of chest, chin 
drawn slightly back.

Exercise
Alternately raise and lower the 
knees.
Exercise 2

Material
1 AIREX® YogaPilates 190 mat
1 AIREX® Balance-pad Elite.

Initial position
In the step position, front foot on AIREX® Balance-pad Elite and knees slightly bent (toes pointing slightly out, knees bent toward middle toe) and rear foot on the mat with the heel in the air, raise both arms side-wise at shoulder height for balance.

Exercise
Bend front knee and extend.
Exercise 3

Material
1 AIREX® YogaPilates 190 mat,
1 AIREX® Balance-pad Elite.

Initial position
On the floor, AIREX® YogaPilates 190 mat and AIREX®
Balance-pad Elite lying in front of the participant.

Exercise
Start warm-up and land on one leg alternating left and
right on the AIREX® Balance-pad Elite.
Exercise 4

Material
4 AIREX® Balance-pad Elite laid spaced apart in a rectangle.

Initial position
Stand on 1 AIREX® Balance-pad Elite.

Exercise
From a crouch jump repeatedly onto a different AIREX® Balance-pad Elite and land safely in a crouch.
Exercise 5

Material
AIREX® Balance-pad Elite, gymnastic ball.

Initial position
Seated on the gymnastic ball, feet apart and pointing slightly outward toward AIREX® Balance-pad Elite, hands on upper thighs, upper body upright.

Exercise
Lift your butt and lower it again. Upper body remains long. The weight must be shifted to the feet, the knees pulled to the outside.
**Exercise 6**

**Material**
AIREX® Balance-pad Elite, Xer-tube.

**Initial position**
Standing on the AIREX® Balance-pad Elite.

**Exercise**
Move the X-er tube back and forth alternately with the right and left foot on the handle on the floor.
Exercise 7

Material
AIREX® Balance-pad Elite, small ball.

Initial position
Standing on the AIREX® Balance-pad Elite.

Exercise
Throw the ball over your head from one hand to the other.
Exercise 8

Material
AIREX® Balance-pad Elite, Step.

Initial position
Standing on step.

Exercise
Jump from step to the AIREX® Balance-pad Elite. Land on both feet.
Exercise 9

Material
AIREF® Balance-pad Elite, AIREF® YogaPilates 190 mat, small ball.

Initial position
Standing on AIREF® Balance-pad Elite.

Exercise
Lift the legs alternately and guide the ball under the leg.
Exercise 10

Material
AIREX® Balance-pad Elite, long dumb-bell rod without weight.

Initial position
Standing on the AIREX® Balance-pad Elite, with both hands firmly grasp the long-dumb-bell rod positioned vertically on the floor.

Exercise
Successively raise and lower legs stretched out to the rear.
Warm-Up: approx. 10 minutes
- Posture improvement on floor, feel the load on the feet on the fixed pad/mat, the same above on the AIREX® Balance-pad Elite.
- Like trees in the wind move from right to left, circling forward and backward.
- Standing still close eyes. Try to feel what is happening to your balance.
- Trained participants can do the trees in the wind with eyes closed.
- Joint isolation standing and in full body movement in place such as side-to-side, marches.

Duration: approx. 20 minutes, music tempo 125 bpm
1 minute: basic step right.
1 minute: basic step left.
1 minute: basic step right with biceps curl.
1 minute: basic step left with biceps curl.
1 minute: basic step right with raising of both arms to shoulder height.
1 minute: basic step left with raising of both arms to shoulder height.
1 minute: basic step right with raising of both arms over head.
1 minute: basic step left with raising of both arms over head.
1 minute: basic step right with arm combi out: biceps curl, raise to shoulder height, raise arms above head and without arms.
1 minute: basic step left with arm combi out: biceps curl, raise to shoulder height, raise arms above head and without arms.
1 minute: knee lift right and left alternating.
1 minute: knee lift right and left alternating with opposing arm raised above head.
1 minute: side leg lift right and left alternating.
1 minute: side leg lift right and left alternating both arms raised to the side.
1 minute: leg curl right and left alternating.
1 minute: leg curl right and left alternating with clapping.
1 minute: travelling tap ups.
1 minute: travelling tap ups with arms crossed in front of chest on tap.
1 minute: combination of all leg movements: knee lift, side leg lift, leg curl, tap up.
1 minute: combination of all leg movements: knee lift, side leg lift, leg curl, tap up with corresponding arm movement.
Partner exercises: approx. 10 minutes

Material
2 AIREX® Balance-pad Elite.

Initial position
Standing facing each other, always on an AIREX® Balance-pad Elite with both hands holding each other firmly.

Exercise
Bend and stretch both legs.
Material
2 AIREX® Balance-pad Elite.

Initial position
Standing facing each other, always on an AIREX® Balance-pad Elite with both hands holding each other firmly.

Exercise
In succession, in each case raise and lower once the right, then the left leg toward the side.
Material
1 AIREX® Balance-pad Elite.

Initial position
Standing facing each other, one on an AIREX® Balance-pad Elite, one on the floor, with both hands holding each other firmly.

Exercise
Partner standing on floor pulls and presses the other into different positions. The latter must try to remain totally upright. He may not yield (stand-up mannequin).
Material
1 AIREX® Balance-pad Elite.

Initial position
Standing facing each other, one on an AIREX® Balance-pad Elite, one on the floor.

Exercise
Partner standing on floor touches/taps the one on the AIREX® Balance-pad Elite. The latter must react with a movement of the body part touched.

Stretching
approx. 5 minutes