HESE: Health Enhancing Sport Exercise Programs
An essential and effective replenishment of HEPA

1. The target group: Sedentary adult population
2. The recommendation: Health enhancing physical activity (HEPA) including exercise (HESE)
3. The evidence: health-effects of HEPA & HESE
4. The difference is quality:
   - Quality-Parameters
   - Quality by Structuring Sport Exercise Programs (aims and sequences)
   - Other (selected) quality Parameters of Sport Exercise Programs
5. The long way: Four steps from inactivity to activity and the necessity of combined interventions.
6. The problem of naming: Health Enhancing Sport Exercise Programs (HESE)?
1. The target group: Sedentary Adults

Of the adults in Germany...
....70% - 98% say, that they are active for at least 30 minutes every day;
....about 40% claim, that they are regular active in sports;
...but only about 20% accumulate at least 800kcal with moderate “sport-activities” (including for example riding a bicycle).

The target group “sedentary adults” is large (not only in Germany) – up to 80% of the adult population.

Sedentary adults...

- are more often affected by risk factors of the metabolic syndrome (obesity, lipid metabolism disturbance, hypertension, prediabetes);
- suffer more often from complaints and diseases of the muscle-skeleton-system (e.g. back pain, osteoporosis);
- have more often problems in the psychic and somatic area (e.g. depressive mood);
- have more often a low self-esteem, a low state of well-being and are less satisfied.

The target group “sedentary adults” is affected by more risk factors, complaints and other psycho-social problems than physical active adults.

In P. Oja & J. Borms (Eds.), Health enhancing physical activity (pp. 29-95). Oxford: Meyer & Meyer.
2. The recommendation:
Health enhancing physical activity (HEPA) including exercise (HESE)

Some examples of guidelines and recommendations


**US Department of Health & Human Services:**
2008 Physical Activity Guidelines for Americans (www.health.gov/PAGuidelines)


**WHO-Europe (2006).** Physical Activity and health in Europe. Evidence for Action


The recommendation: Health enhancing physical activity (HEPA) including exercise (HESE)

What do we recommend adults? (despite substantial differences in the published recommendations)

(1) Accumulate at least two hours per week (or 30 minutes on most of the days) of **everyday life physical activity** (e.g. brisk walking, stair-climbing, cycling) or of **sport activity** (e.g. playing golf, tennis or volleyball) requiring at least moderate physical intensity.

(2) Accumulate additionally at least 90 minutes of “structured physical activity” per week – that means **sport exercise** stimulating effective the fitness factors endurance, strength, flexibility, coordination, relaxation.
3. The evidence: health-effects of HEPA & HESE

Population based studies and some longitudinal studies show evidence

- for preventive effects (reduction of risk factors of the metabolic syndrome);
- for an improvement of the quality of life (better fitness, less complaints, better emotional status).

But these studies also show that

- everyday life activities are less effective than sport activities;
- sport activities are less effective than sport exercise programs;
- behavior change from sedentary to active behavior does not come about automatically.


Oja, P.: Frequency, Duration, Intensity and total volume of physical activity as Determinants of health outcomes, pp. 169 - 207; Vuori, I. Physical inactivity as a disease risk and health benefits of increased physical activity, pp. 29-95)
4. The difference is quality:

- Quality-Parameters
- Quality by Structuring Sport Exercise Programs (aims and sequences)
- Other (selected) quality Parameters of Sport Exercise Programs
The difference is quality: Quality-Parameters

- **Physical activity**
  - Parameters performance: frequency, duration, intensity
  - Parameters structure: aims, sequences/contents

- **Physical health resources:**
  - Fitness factors, e.g., endurance, strength

- **Psychosocial health resources:**
  - E.g., social support, self-esteem

- **Physical risk factors and complaints:**
  - Risk factors, e.g., obesity, blood lipids, pain musculoskeletal system

- **Psychosocial risk factors and complaints:**
  - E.g., disorders, psychosomatic pain, stress, anxiety

- **Promoting**:
  - Social status, friends, living situation, setting, group, trainer

- **Preventing**

- **Coping**

- **Poor health / disease**
  - Wellbeing / good health

The difference is quality: Quality-Parameters Structure (Aims and Sequences)

<table>
<thead>
<tr>
<th>Aims</th>
<th>Sequences</th>
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<tbody>
<tr>
<td>everyday life</td>
<td>no explicit sequences</td>
</tr>
<tr>
<td>physical activity</td>
<td></td>
</tr>
<tr>
<td></td>
<td>carry out something</td>
</tr>
<tr>
<td></td>
<td>accumulate calories (?)</td>
</tr>
<tr>
<td>sport activity</td>
<td>sometimes, e.g. of training</td>
</tr>
<tr>
<td></td>
<td>improve abilities</td>
</tr>
<tr>
<td></td>
<td>have fun</td>
</tr>
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<td>have success in competition</td>
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</table>
Quality by structuring sport exercise programs: aims

Target Groups

"Sedentary, unfit adults"  "active, fit adults"

Sport-Exercise-Programs

Health-Sport-Programs\(^1\)

1. Improvement of physical resources /fitness (endurance, strength, flexibility, coordination, relaxation).
2. Improvement of psychological and social resources (motivation, knowledge, mood/fun, social competence, integration).
4. Improvement of coping competence.
5. Improvement of compliance with health directed physical activities (changing behavior).
6. Creation of supportive settings (i.e. qualified teachers, networking with physicians)

(Aims derived from WHO-concept of health promotion)

Fitness-Sport-Programs\(^2\)

1. Improvement of fitness (endurance, strength, flexibility, coordination, relaxation – often focused).
2. Improvement of psychological and social resources (especially: mood/fun, motivation, integration).

1 + 2:


_German Gymnastic Federation_ (2011). GYMWELT. Frankfurt (19 pages)

Also adopted by _German Federation of Sports Science_ since 1999.

Quality by structuring sport exercise programs: Sequences

Health-Sport-Programs (90 min)

1. Opening Sequence (come together, heart rate, today’s program, max. 5 min.)
2. Warming-Up Sequence (games, low intensity motivating large muscle activities, max. 10 min.)
3. Endurance Sequence (walking, jogging in variations/with music, max. 25 min.)
4. Muscular Strength and Flexibility Sequence (max. 30 min.)
5. Relaxation Sequence (max. 10 min.)
6. Final fun & activating Sequence (max. 10 min.)
7. Information Sequence (max. 10 min., combined with one of the sequences 1 - 6)

Fitness-Sport-Programs (60 – 90 min.)

1. Warm-Up: 5 – 10 min. of low-intensity large muscle activities (e.g. walking, stretching).
2. Stimulus or Conditioning Phase
   Includes endurance, resistance & flexibility programming.
3. Recreational activities
   e.g. modified games to experience successful participation.
4. Cool-Down
   e.g. stretching, relaxation, yoga or tai chi exercises


Other quality parameters of Sport Exercise Programs

<table>
<thead>
<tr>
<th>Health-Sport-Programs</th>
<th>Fitness-Sport-Programs</th>
</tr>
</thead>
<tbody>
<tr>
<td>• an evaluation of the program (experts &amp; research);</td>
<td>• qualified basic training of the trainers;</td>
</tr>
<tr>
<td>• a published Program-Manual;</td>
<td>• maybe special qualification in new trends (e.g. Drums Alife, Aroha, Indian Balance,</td>
</tr>
<tr>
<td>• a qualified basic training of the trainers and a special introduction in the</td>
<td>Body-Work-Out).</td>
</tr>
<tr>
<td>program;</td>
<td></td>
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<tr>
<td>• a quality management within the club;</td>
<td></td>
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<tr>
<td>• a satisfying setting (gym, equipment, shower)</td>
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<tr>
<td>• preventive health check-ups in cooperation with physicians.</td>
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3. The long way: Four steps from inactivity to activity....

FIT-Stage-Model of Physical Activity Behavior

**Target Group “Sedentary Adults”**

- **Inactivity**
  - Not Considering: Inactive and not thinking about being physically active
  - Considering: Inactive but making a decision and building up plans to start with physical activity

- **Activity**
  - Maintaining: Being physically active regularly for twelve months or more
  - Exploring: Being physically active regularly, but less than twelve months
  - Fluctuating: Being physically active not regularly

**1: “regular” means at least 120 minutes per week**

**2: “not regular” means not regular every week and not in every week for accumulated at least 120 minutes**

**References**


Activity programs & infrastructure

Health Sport Programs: Development & Implementation in the DTB

Until 2010 the German Gymnastic Federation has published and is communicating 10 health sport programs of high quality.
Until 2011 the German Gymnastic Federation has implemented the Health Sport Programs in about 14,000 of his clubs (70%).


Fitness Sport Programs are integrated in nearly all of the about 20,000 DTB Clubs

The problem of naming: Health Enhancing Sport Exercise (HESE)?

Health Enhancing Sport Exercise? (HESE)

Health Enhancing Physical Exercise? (HEPE)

Health-Sport-Programs?

Health-Exercise-Programs?

Fitness-Sport-Programs?

Fitness-Exercise-Programs?