

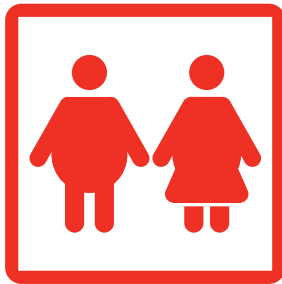


Mensana
Treat+Optimize+Prevent

A Healthy Balance

Not a day passes without a health pressure group, medical association or the government alerting us about the health risks induced by our lifestyle. With its scientific integrated body health approach, Mensana offers full-body health assessment and optimization programs, beyond those previously available.

LIFESTYLE ALERT!



Knowing your body

A lot of people in today's sedentary society do not know what their health status is; most also tend to overestimate it. Finding a healthy balance starts with knowing about the actual health status of your body and which risk factors you are exposed to.

With its scientific integrated body health approach, Mensana offers full-body health assessment programs beyond those previously available. During the examinations a wide range of physical and medical parameters will be collected, providing you with a detailed status report.

Finding a healthy balance

If required a second step towards a healthy balance is to optimize your body, and actively maintain this balance. Key in this process will be to balance the energy intake (nutrition) and energy consumption (physical activity) while also committing to a sound and regular life rhythm, and this is where a lot of people fail today.

Mensana can help you with dedicated customized optimization programs, including (1) a basic health testing and risk assessment, (2) feedback, advice, realistic goal-setting and education, (3) supervised training and nutritional regimens, (4) longitudinal follow-up and mental coaching, and (5) disease prevention and referral.

Did you know?

- 44.1% of Belgium's population older than 18 years is reported overweight (25 < BMI < 30)¹ or obese (BMI > 30), with more than 50% too fat² and accordingly more prone to develop a wide range of severe medical conditions³;
- 57% of all Belgians of 18y and older do not engage in sufficient physical exercise in order to experience a positive health effect⁴;
- 27.5% of all Belgians above 15y are diagnosed with blood pressure and 40.5% with blood cholesterol higher than recommended⁵;
- 1 in 3 women and 1 in 5 men above 50 suffer from Osteoporosis worldwide⁶ and the lifetime prevalence of low back pain in European countries varies between 60 and 85%.⁷
- In many cases "super diets", liposuction⁸ or even unsupervised sports may be very harmful.
- *And... above all, most people overestimate their health status!*

Common diseases related to lifestyle

- Obesity and overweight
- Heart disease and hypertension
- Osteoporosis and back pain
- Depression and sleeping disorders
- Some cancers

Common lifestyle-associated risk factors

- Physical inactivity
- Irregular and unbalanced nutrition
- Alcohol abuse and excessive smoking
- Stress and unhealthy work-life-rest balance
- Lack of health awareness

Mental coaching

Finding a healthy balance may sound very challenging and for some people this may be too big a burden. During the optimization programs, we pay special attention to the mental condition and motivation of the patient, teaching them that regular physical activity and balanced adequate nutrition can be fun, and the long lasting effect of their efforts extremely rewarding. Very important is to know that young, or of advanced age, one can do something about it, and one does not need sturdy abdomen to be and feel healthy.

Full-body health assessment and optimization programs, beyond common the approach

Scientific integrated body health approach

A health assessment and optimization program requires more than just measuring scale weight and putting you on a bike, it requires a scientific integrated body health approach that is tailored to the uniqueness of the individual. Manned with a multidisciplinary team of medical doctors and equipped with the latest technologies Mensana helps the individual or group with customized and scientifically validated full-body health assessment and optimization programs.



A baseline: where are you now

In a group or as an individual... At your company, school, care home,... For your event or campaign...



...there is a solution: our Mensana Mobile Health Facility or our Mensana Hospital Health Facility

Your profile

No two individuals, metabolism, body or preference are alike, which is why the Mensana full-body health assessment and optimization programs are always customized. However, some profiles are recurrent:

- *“Medication and super diets kept my weight and state of mind bouncing up and down: setting a longer term lifestyle-changing program proved better: not only is my weight under control, I feel healthy. Key in achieving this: motivation, received by proper feedback, deeper understanding & realistic goal setting.”* V.L. (Florist)
- *“Thinking I could rather easily re-start my rugby hobby [after a year of inactivity], I started training at the same intensity I used to. 4 weeks later, out of the game and inconvenience at work for 6 months due to ...a knee injury.”* M.S. (Bank employee)
- *“In our rheumatology clinic, we have a dedicated health program for our Osteoporotic subjects of advanced age. Strange you may think at first glance, however increasing the muscle mass and improving the equilibrium does help strengthening the bone, reduces the fall risk significantly, and helps avoiding sarcopenia.”* S. Poriau (MD, Mensana)

Looking beyond traditional parameters

Assessing the full-body health and designing custom optimization programs is not a simple task, and a multiple facets approach requires looking beyond traditional parameters. During the Mensana programs the following interrelated steps are taken:

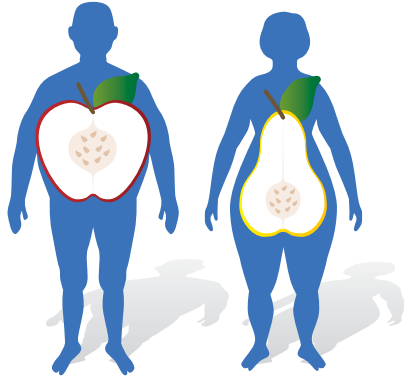
Analysis – Anamnesis, Sampling and Recommendations

- **Anamnesis:** Family history, lifestyle and habits are thoroughly assessed and risk factors are evaluated with the individual.
- **Sampling:** Blood, saliva & urine may be analyzed, focusing on LDL/HDL cholesterol, insulin and triglycerides, as are the metabolic digestion and liver function.
- **Recommendations:** Preceded by thorough statistical analysis of the clinical and performance assessments, Mensana provides proper feedback, focusing on achieving a sound health balance; including realistic goal setting, mental coaching and/or referral for treatment. Additionally, Mensana offers the possibility of regular follow-up.

Analysis – Ergonomic and Gait & movement

- Working, moving or exercising, and also relaxing or sleeping: all require a variety of body movements and postures. In the Ergonomic module the individual is assisted in optimizing his/her working space, and in planning activities focusing on mental and bodily sustainability.
- The gait & movement analysis will allow diagnosis or prevention of movement inconvenience and/or pathologies. Special attention also goes to the equilibrium, and if needed insole therapy can be prescribed.

Analysis – Body composition and Bone health



Fat matters... *where* matters more.

- Many people have a less than ideal body composition and would benefit from establishing a starting point and target for improvement. With the Body composition assessment using Dual X-ray Absorptiometry (DXA) the fat & lean (muscle) tissue mass and its distribution within various regions of interest are assessed. After the evaluation of the current status of the body, individuals can be monitored longitudinally.
- In addition to Body composition, also a Fracture risk assessment – i.e. bone mineral density (BMD) test – is performed. When detected early bone health conditions such as Osteoporosis may be successfully prevented and treated.



Your body composition and bone health, in detail.

Analysis – Ultrasound diagnostic imaging

- While DXA also provides a total body “macro” image of the fat & lean tissue and the skeleton, we visualize the organs, blood vessels, tendons, cartilage, muscle and fat with Ultrasound in live “micro” 4D.
- Using Ultrasound a wide range of conditions may be detected with treatment initialized in the earliest stage:
 - Wearing conditions on the typical weight-bearing regions of the knee and heel –common in overweight subjects;
 - Injuries or strains, such as tendonitis or lesions of the cruciate ligaments; and
 - Anomalies to the vital organs such as the heart or lungs.



Performance – Exertion physiology

- Key to assessing your health and making adjustment is the ability to obtain knowledge about the metabolic rate and the functioning of the vital organs. The sampling tests (described above) provide us information for the gastro-intestinal function, whereas the electrocardiogram and stethoscope give us insight to the heart’s function in rest and stress, with the ergospirometer to determine pulmonary function with V02 and VCO2, as well as RMR (resting metabolic rate), BMR (basic metabolic rate) and the turning points.
- The obtained information is key both in assessing the initial health status, as well as quantifying the improvement of the physical condition.

Performance – Biomechanics and Power & Explosivity

- The muscular development and basic health are assessed during the Biomechanics and Power & Explosivity assessment modules, using the bike treadmill and the tri-axial accelerometer among others.
- Evaluating this we can help the individual develop both central and local aerobic and anaerobic capacities at proper intensities, as well as improve isolated muscles with dedicated training programs.



“In addition to the testing environment, our Mensana Hospital Health Facility offers a supervised place to workout alone or together.”

Performance – Equipment

The equipment list used for the Performance modules includes the following:

- Biodex power analysis, evaluating balance, equilibrium and distribution, as well as the assessment of the power in the limbs.
- Tri-axial back & abdomen analysis, determining speed of movement and the power in back & abdomen.
- Tri-axial accelerometer, analyzing the efficiency and speed of movement.
- Running & biking treadmills, for testing performance.
- AV equipment and bike fitting, for demonstrating ergonomic principles and adjustment
- Jump mats, assessing upper body power & overall equilibrium
- Electrocardiogram (described above)
- Ergospirometer (described above)

Mensana Treat+Optimize+Prevent

Body health is your worry and our expertise: Manned with a multi-disciplinary team of medical doctors, equipped with the latest technologies, Mensana helps you to achieve your goal: a healthy balance!

Mensana is also a leading centre for treating and optimizing, with programs for Obesity, Rheumatology and Sports medicine.

1. Mens sana in corpore sano, Ancient Roman concept which relates the mental health of an individual to its healthy body – Juvenalis 10.356
2. Your body, assessed with scientific sensibility – S. Poriau (MD, Mensana)
3. Treated, optimized & aware you achieve your goal: body health and/or peak performance... – C. Maes (PhD, Mensana)

Mensana Mobile Unit Advisory Board

We have a dream

Realizing our vision to Treat+Optimize+Prevent all requires thorough consideration, know-how and expertise. Presided by S. Poriau (MD) and C. Maes (PhD) Mensana-MCSBR is backed by the Mensana Advisory Board including scientists and clinicians, governmental and non-profit institutions, technology industry experts and financial and legal counselors; and by voice of the patient in order to pro-actively:

- Redefine care in applied body health
- Enhance patient awareness
- Contribute to the community
- Ensure viability while extending pioneering role

We realize a dream

2001: Foundation Mensana-MCSBR

2001: Start medical and paramedical follow-up professional cycling teams

2001: Start partnership with GE Healthcare

2003: Start Federal and Provincial cooperation and projects

2005: Start National Lottery cooperation and projects

2005: Scientific publications at European Congress on Obesity (ECO)

2006: Launch 10t Mobile Mensana Health Facility

2007: Major scientific contribution on various European congresses incl. ECO

Plot your path with Mensana

- Would you like us to come to your event, company, school or care home with our Mobile Mensana Health Facility?
- Would you like to visit Mensana in Sijsele-Damme, Belgium?
- Would you like to partner with Mensana?



Mensana - MCSBR

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1. Gezondheidsenquête 2004, Boek III – Leefstijl – Voeding – Voedingsstatus – p. 207

2. Including the Normal Weight Obese (NWO) population, i.e. the individuals with an unhealthy fat proportion, masked by low muscle mass and/or weak bones. De Lorenzo et al. indicate that NWO may be characterized as normal weight and BMI, but a high fat mass (>30%). De Lorenzo A, Martinoli R, Vaia F, Di Renzo L. Normal weight obese (NWO) women: an evaluation of a candidate new syndrome. In: Nutrition, metabolism & cardiovascular diseases. 1006;16:513-23 (Epub 2006 Mar 3)

3. "Diabetes (type 2, insulin resistance), cardiovascular diseases, hypertension, sleeping disorders, some cancers, arthritis – just to mention a few risk factors." Obesity Forum. Open Brief vanwege het Obesitas Forum aan de Heer Rudy Demotte, Minister Sociale Zaken en Volksgezondheid, Federale regering 10/05/2005. <http://www.vvd.be/doc/Open-Brief-Minister-Demotte-Obesitas.pdf>

4. Gezondheidsenquête 2004, Boek III – Leefstijl – Lichaamsbeweging – p. 6
<http://www.iph.fgov.be/epidemiocrospnl/hisnl/his04nl/his31nl.pdf>

5. Gezondheidsenquête 2004, Boek IV – Preventie – Cardiovasculaire preventie – p. 144, 148

6. <http://www.iofbonehealth.org/facts-and-statistics.html>

7. Anderson GB. Low back pain. J Rehabil Res Dev 1997; 34(4):ix

8. Hoewel de meest schadelijke vetten rond de organen zitten (en via liposuctie niet verwijderbaar zijn), en liposucties niet zonder gevaar zijn, worden in België naar schatting (La Meuse) jaarlijks tussen 20.000 en 30.000 liposucties of liposucties uitgevoerd. Top 5 des interventions: la beauté à quel prix? La Meuse, 4 mei 2005