

The *wellbeing* project



Project facts



- Funding: national/EU (AAL Joint Program)
- Duration: 06/2014 – 05/2017
- Budget: 2.5 M€ / 1.6 M€
- Consortium: 8 partner
- Project Coordinator: Michael Brandstötter (CogVis)



Wellbeing consortium



- CogVis GmbH (coordinator, AT)
- Vienna University of Technology (AT)
- AIMC (AT)
- Fitbase (DE)
- Smart Homes (NL)
- Intrarom (RO)
- ISOIN (ES)
- University of Vienna (AT)



Motivation



- Employees are sitting for > 8 hours/day
- Not ergonomically designed workplaces
- Malnutrition
- Little/no exercising

- Problems for employees
 - Physical problems (e.g. back pain)
 - Mental problems (e.g. stress, burnout)



Project aim



- Prevent physical and mental problems
 - Already at an early stage
- Provide holistic platform
 - To enhance the wellbeing and quality of life
- Target group
 - Employees
 - “younger elderly” (50+)
 - Perform job sitting (using a desk)
 - Adoption for broader group possible (e.g. bus driver)



Wellbeing modules



Physical Training



Stress Management



Workplace Ergonomics



Nutritional Balance

Physical Training



Motivation



- Gyms and personal trainer are expensive
- Small number of enterprises offers these possibilities
- Provide information about exercises
 - Books
 - Videos
 - Internet
- Problem: low endurance



Solution



- Mini games
 - Motivation
 - Social challenges (multiplayer)
- Gamification
 - Competition between employees
 - Health tree



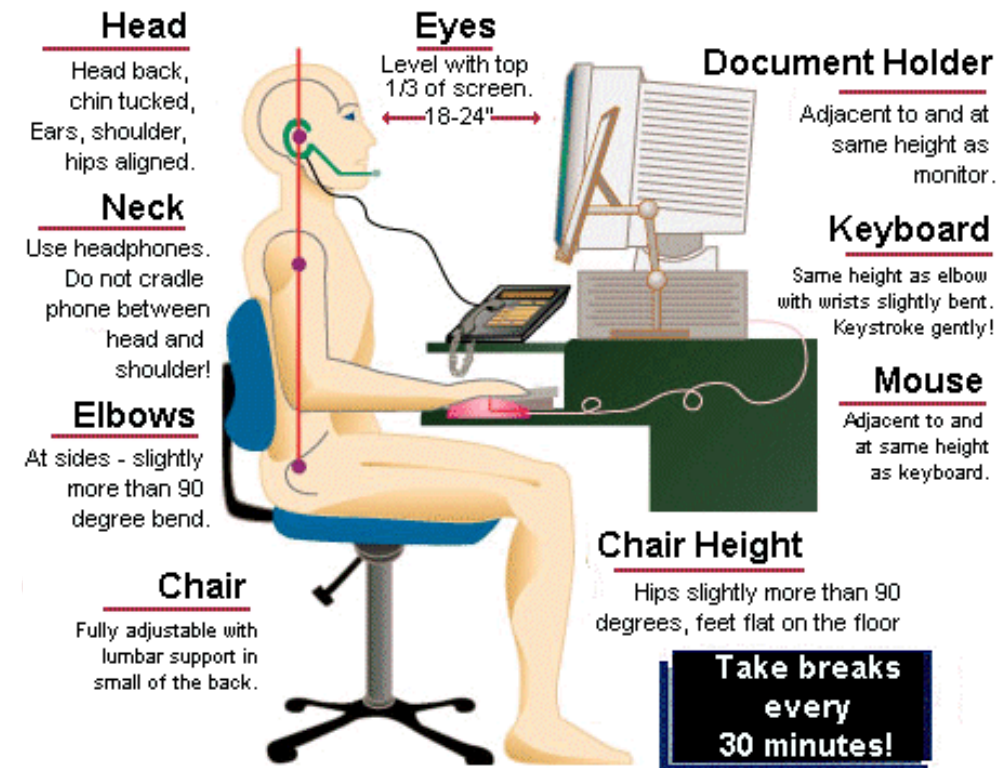
Workplace Ergonomics



Motivation



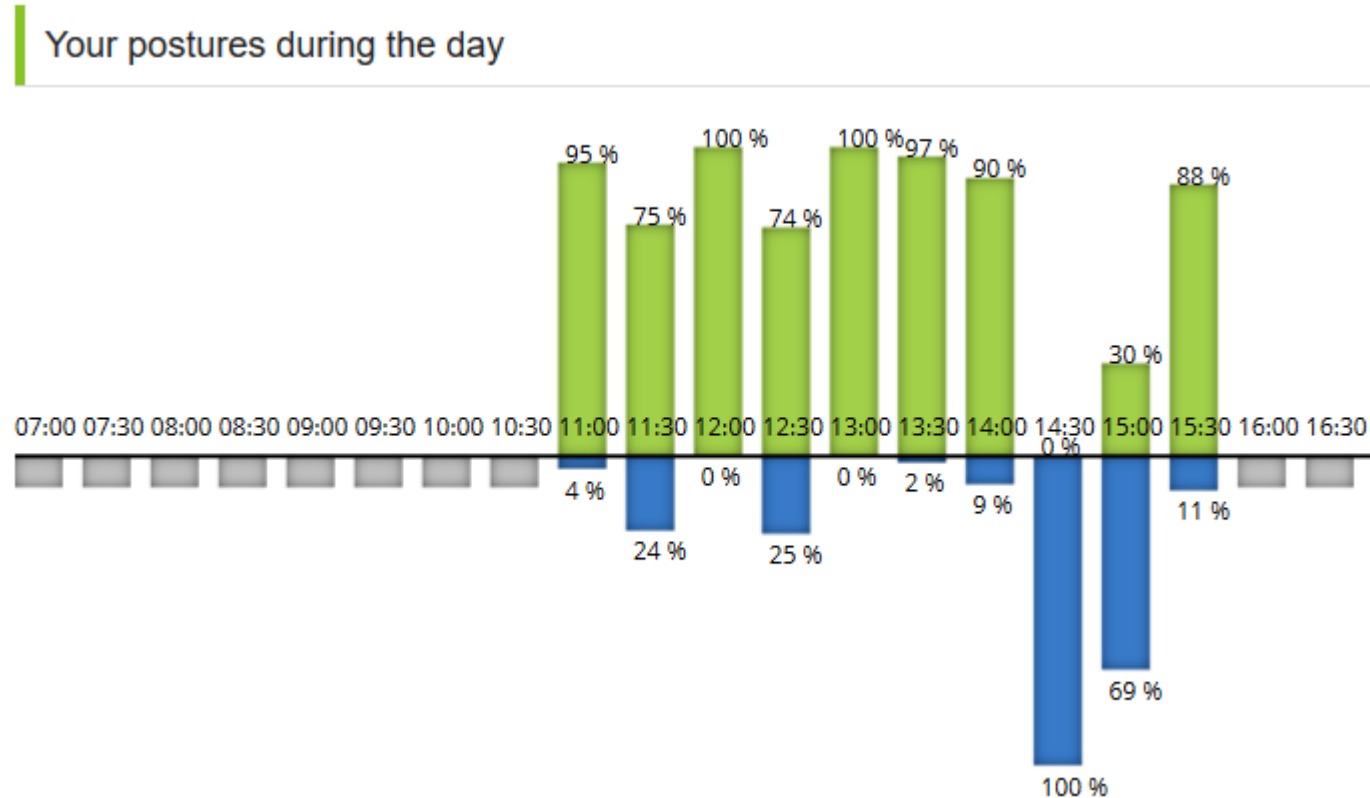
- Ergonomic standards
 - Prevent back pain or postural deformity
 - Regular breaks
 - Difficult to apply in practice
- Sitting position need to be corrected
 - Awareness only for limited time



Solution



- 3D sensor
- Detects position of the user
 - Angle between joints
- Real-time feedback possible
- Reminder
 - Change pose
 - Breaks



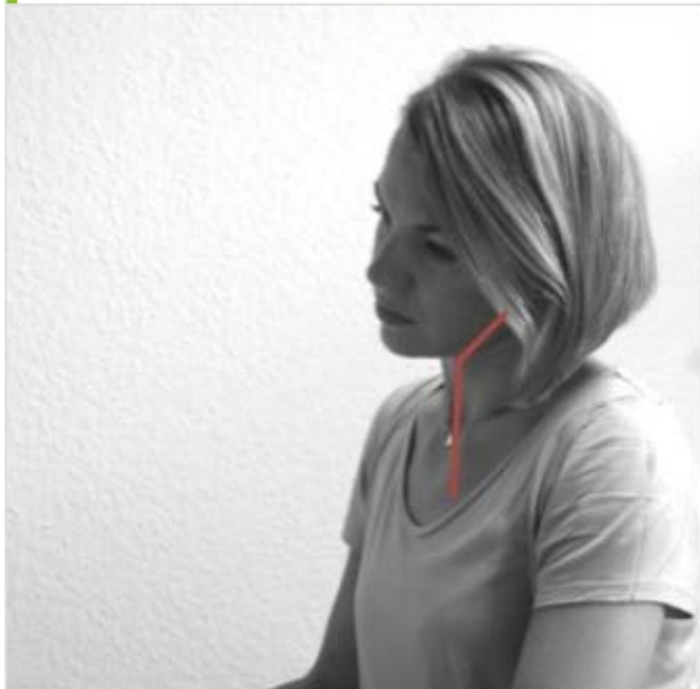
Solution



Incorrect postures / Recommended exercises between 2016 September 19 and 2016 September 19

Your unhealthy positions

44% Ergonomics 15_0111



Recommended exercises

Chest Stretching



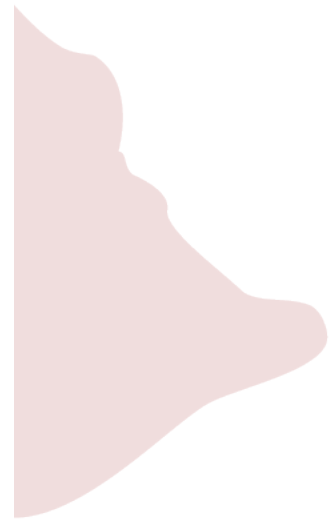
Chest Stretching wit...



Flexed Chest Stretc...



Spread Fingers



Nutritional Balance



Motivation



- Many diseases of older adults are diet-affected
 - E.g. Cardiovascular problems, diabetes,...
- Nutrition requirements changes
 - When getting older
- Reduced time and resources
 - No time to pay attention to healthy nutrition
 - Stress



Solution



- Analyse food intake
- Provide recommendations
- Provide information/reminder
 - Nutrition schedule
 - Water intake

A screenshot of a web application interface for a nutrition diagnostic. The header features a green apple with a stethoscope around it, with the word 'DIAGNOSTIC' overlaid in white. Below the header is a breadcrumb trail: 'Home / Diagnostic'. A light blue notification box at the top states, 'Please, take into account that all values are approximate.' with a close button. The main content area is titled 'My nutrition diagnostic' and contains three horizontal bars: a pink bar for 'Suboptimal energy intake', a pink bar for 'Suboptimal fluid intake', and a green bar for 'Normal weight, your weight is ok.'.

DIAGNOSTIC

[Home](#) / [Diagnostic](#)

Please, take into account that all values are approximate. ×

My nutrition diagnostic

Suboptimal energy intake

Suboptimal fluid intake

Normal weight, your weight is ok.

Stress Management



Motivation



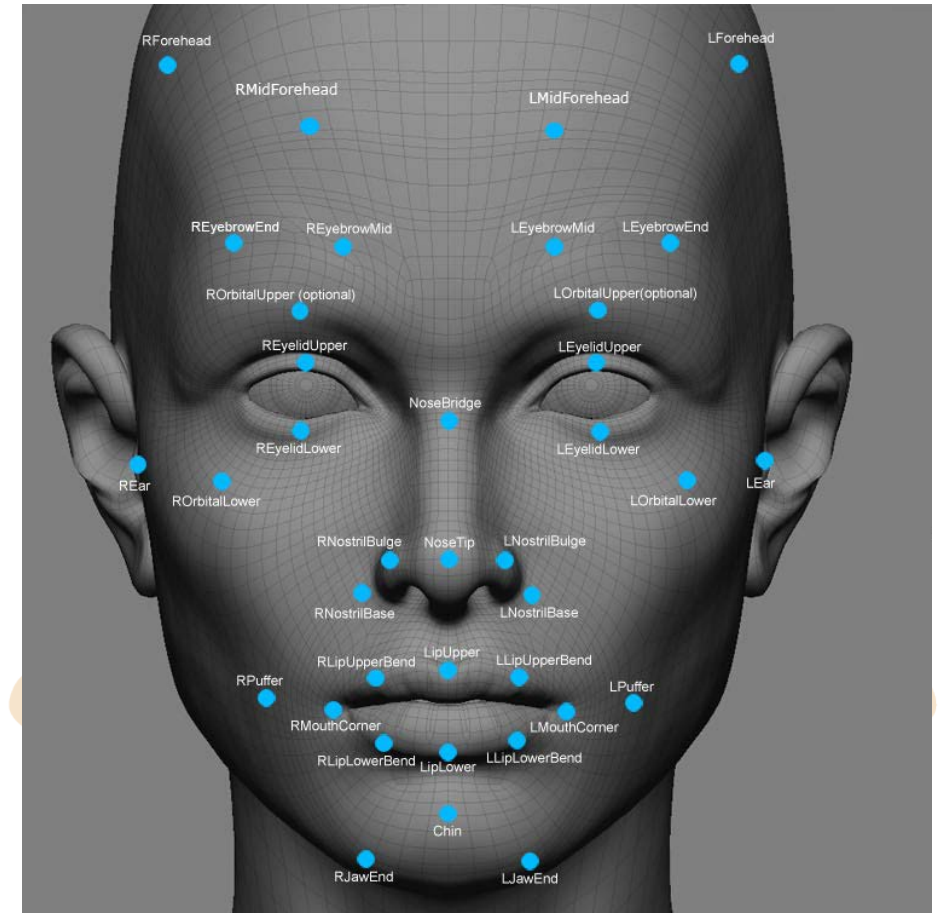
- What is stress?
 - Demands are higher than resources
 - Low job autonomy and support
- Job stress is serious problem
 - Physical and mental problems
 - Early retirement



Solution



- Increase personal internal resources
 - Cognitive & physical abilities
 - Mini games
- Detection of stress
 - Facial expression
 - Amount of movement
- Increase social interaction
 - Competition in mini games
 - Motivation for exercises
- Providing tools for stress management



Conclusion



- Wellbeing provides holistic platform
 - Physical Training
 - Workplace Ergonomics
 - Nutritional Balance
 - Stress Management
- Online platform & mobile app
- End user integration is essential



Questions?

Thank you for your attention!

