

**BOOK OF ABSTRACTS OF 2nd SCIENTIFIC CONFERENCE
“LIFESTYLE MEDICINE FOR LONGEVITY. BLUE ZONES INSPIRATIONS”
23-24 MAY 2024, POZNAŃ, POLAND**

LECTURES on 23 MAY 2024

Lifestyle Medicine: Choosing Prevention Over Treating Disease

Jennifer Baker-Porazinski, MD

How to become centenarian in 4 weeks? Lessons from the Blue Zones with exceptional longevity

Michel Poulain, Prof. PhD – Key-note speaker and visiting Professor on Blue Zones

SESSION I: LIFESTYLE MEDICINE FOR LONGEVITY - NUTRITION

Obesity, an epidemic disease and lifestyle interventions for prevention and treatment

Ioannis Arkadianos M.D. - President and co-founder at “European Lifestyle Medicine Organization”

Obesity is a complex health condition characterized by an excess accumulation of body fat. It's not merely a cosmetic concern; rather, it poses significant risks to overall health.

Obesity is a disease (ICD-10 Code E66) that is largely due to the modern lifestyle and can lead to other various diseases and conditions as: type 2 diabetes, cardiovascular diseases, stroke, certain cancers, fatty liver disease, joint problems etc. World Obesity Federation (WOF) recognizes obesity as a "chronic, relapsing, progressive disease process."

Health Professionals must target basically to prevent and to treat Obesity via evidenced based lifestyle interventions including nutrition, physical activity, stress management etc.

Impact of plant-based diets on metabolic risk and longevity

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Introduction. Plant-based diets (PBDs) are associated with many health benefits, such as improved metabolic and inflammatory profile. In turn, the incidence of cardiovascular disease, diabetes and excessive body weight is lower in adults consuming PBDs, which contributes to their better health. Studies in persons following PBDs are still limited.

Purpose. The aim of the study is to assess metabolic profile and knowledge on healthy behaviours in the group of vegetarians and vegans living in Lodz, Poland.

Methods. The study subjects comprise a group of 150 adults who were following PBDs for at least 12 months (100 vegetarians, mean age 34,5 yrs and 50 vegans, mean age 33,2 yrs). All the participants were extensively reviewed, including detailed dietary recalls, physical activity level, smoking and alcohol consumption, knowledge of the healthy behaviours. Anthropometric measurements included weight, height and waist circumference. Metabolic biomarkers included measurements of HDL-cholesterol, triglycerides, glucose, insulin, hba1c.

Results. Most of the analysed parameters were comparable between the vegetarians and vegans groups. However, vegetarians had higher triglycerides concentrations as compared with vegans (0,98 vs 0,82 mmol/L, respectively), higher hsCRP (1,24 vs 0,77 mmol/L), glucose (4,87 vs 4,71 mmol/L), body mass index (23, 1 vs 21,9 kg/m²) and insulin (39,9 vs 34,9 umol/l). Both groups had comparable mean systolic and diastolic blood pressure (109/67 vs 109/66 mmHg).

Conclusions. Although all participants following PBDs had relatively beneficial metabolic profile in the studied population, better results were observed among vegans. There is a need to perform further studies on the association between PBDs and aging in populations.

SESSION II: LIFESTYLE MEDICINE FOR LONGEVITY – PHYSICAL ACTIVITY

Exercise for Longevity

Or Hever, MSc - physiotherapist in Warsaw, Poland.

I. Introduction

Defining longevity and the role of exercise in promoting a healthy lifespan

II. Understanding VO₂max

Explanation of VO₂max and its significance for longevity

Strategies for improving and maintaining VO₂max

III. Functional Tests

Introduction to key functional tests for assessing longevity

Importance of functional fitness for maintaining independence

IV. Grip Strength

Overview of grip strength as a predictor of health and longevity

Strategies for improving grip strength

V. Integrating Exercise

Practical tips for incorporating exercise into daily life

Benefits of regular, moderate-intensity exercise for longevity

VI. Q&A Session

Open floor for questions and discussion

VII. Conclusion

Recap of key points

Encouragement for prioritizing exercise for long-term health

Determinants of bone mass and bone mineral density

Prof. (Assoc.) Anna Kopiczko, PhD - *Józef Piłsudski University of Physical Education in Warsaw, Faculty of Physical Education, Department of Human Biology, Warsaw, Poland.*

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The study involved 2250 Caucasian women and men with a chronological age of 14 to 75 years. Quantitative and qualitative bone tissue data for the forearm, hip, and lumbar spine were collected: bone mineral density, bone mineral content by the densitometry method. Quantitative and qualitative physical activity data were used (MET- metabolic equivalent for task; PA levels: high, sufficient, and insufficient as recommended by the American College of Sports Medicine-ACSM and WHO) and sports training (type of sport practiced, including endurance, speed and power sports, athletic throwing events, and swimming), and selected biological status characteristics, quantitative and qualitative dietary variables, sun exposure as a non-nutritional source of vitamin D, and smoking. For normal bone mineralization, physical activity undertaken in all periods of ontogenesis (lifelong physical activity) is beneficial, both in adulthood and earlier in the age of peak bone mass.

Sufficient and high levels of physical activity and sports training based largely on high osteogenic index (OI) exercises have significant beneficial effects on bone mineralization status in both men and women of different chronological and biological ages.

Together with physical activity, the good mineral status of bones is determined by the adequate proportion of skeletal muscle mass and adipose tissue mass in the body tissue composition, dietary intake of calcium and vitamin D, and sufficient sun exposure. These factors may synergistically interact with physical activity.

The phenomenon of winterswimming

Izabela Różycka, MSc, *K. Radomska, P. Dymarczyk - Academy of Physical Education in Poznań, The Faculty of Physicaleducation in Gorzów Wielkopolski, Department of Physiotherapy; email: klaudia.radomska@vp.pl*

Swimming is bathing, immersing or swimming in the cold water of a lake, river, sea or tub. Doctors recommend winter swimming 1-2 times a week, but no more than 3-4 times. The first baths should be short, lasting from 30 to 60 seconds, depending on your condition. However, a regular "walrus" can easily stay in cold water for 3 to 5 minutes. For health purposes, as a type of whole-body cryotherapy, regular exposure to cold (8-11 °C) and icy (< 4 °C) water has a beneficial effect on the body. The stimulating effect of cold stimulates the body's defense reactions. Adaptation of thermal regulation mechanisms occurs in two phases: 1/constriction of blood vessels in the skin and subcutaneous tissue (defense), 2/wave dilation - hyperemia, increase in skin temperature. The paper presents the advantages of winter swimming: improvement of circulatory and respiratory fitness, immunity, metabolism, increased tolerance to stress factors, reduction of swelling (cellulite), inflammation of joints (degeneration, injuries), reduction of pain, impact on the hormonal balance. An additional advantage, is the improvement of vitality, sleep quality and antidepressant effect. Used in both treatment and biological regeneration (sports, beauty). In addition to the positive effects, there are also side effects, often related to the carelessness of people who decide to go winter swimming - hypothermia, thermal shock, problems with the heart muscle, pulmonary edema or even death.

Can owning a dog lead to healthier lifestyle?

Hanna Chowaniec, MD, Department of Immunology, Poznan University of Medical Sciences, Poznan, Poland

According to the quantitative research presented by the Ministry of Sport and Tourism of Poland, only 28% of Poles meet the 2020 WHO physical activity guidelines (excluding walking) and only 29% declare to walk regularly. To live a healthy lifestyle, it is very important to maintain regular physical activity (one of the six Lifestyle Medicine pillars) as it is the key to reduce risk of cardiovascular diseases, and improve overall life quality (including mental health). Recently many researches and cohort studies were performed, examining if owning a dog has an impact on physical activity of the owners. All of them unanimously confirm that dog ownership is associated with more recreational walking and considerably greater odds of meeting WHO physical activity guidelines. The huge role in increased walking distance plays the relationship between the dog and the owner, as they start to go out “for the dog” but with time they discover the positive impact on their mental health (stress relief, happiness). Dog ownership surely helps to live a healthier lifestyle and can be considered as a strategy for increasing population levels of physical activity, reducing cardiovascular deaths and improving mental health.

SESSION III: LIFESTYLE MEDICINE FOR LONGEVITY – PHYSICAL ACTIVITY PART 2

Hero of Health App - AI Integrated GP Neighbourhoods Revolutionary Access for Patients to their GP Services, Local Resources & Healthy Lifestyle Practices with Neighbours

Linda Mizun, MD - Co-Founder of Hero of Health App - Which builds Integrated GP Neighbourhoods that reduce GP presentations by up to 44%.

Physical Activity and Female Reproductive Status

Małgorzata Jusiakowska-Piputa, PhD¹⁾, **Maria Kaczmarek²⁾**, PhD, DSc, Professor of Biological Science
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The demographic crisis in Europe is growing due to an increasing proportion of couples with fertility disorders. Research suggests that lifestyle factors, such as physical activity, can influence fertility. In this study, we investigated the impact of physical activity on the reproductive status of 196 women aged 23-46 years with normal ovarian function. We found that Anti-Mullerian hormone (AMH) is a useful tool for determining changes in reproductive potential. The pool of ovarian follicles is formed during fetal development. Follicle-stimulating hormone (FSH) is a standard marker of the hypothalamic-pituitary-ovarian axis.

The International Physical Activity Questionnaire was used to assess physical activity levels in Metabolic Equivalents (MET).

Somatic parameters such as waist-hip ratio (WHR) and body fat (BF) were also measured. Blood samples were taken to measure AMH and FSH levels.

A correlation was observed between slightly higher but still within normal limits AMH levels and lower WHR. No correlation was found between somatic parameters and the hormones studied. The

results did not confirm a statistically significant correlation between AMH and FSH levels and sufficient (68.4%) and insufficient (31.6%) physical activity.

Keywords: AMH, FSH, physical activity, WHR, BF

Slavic Gymnastics for Women - mindful body practice

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Slavic Gymnastics for Women (SGW) is psychophysical system of exercises, which were separately passed down orally as health-promoting tradition of Slavic women, probably since centuries. As the system exercises were published in a handbook for university students in Minsk, Belarus in 1999. Since the beginning of 21st century is promoted in East-European countries, in Poland first women started practice in 2016, and it is still not yet well recognized, Physical activity has preventive effect, reduce the risk and consequences of many diseases. SGW as other psychophysical systems, like e.g. yoga, can affects women's health.

The research project was run to evaluate selected parameters of immune system and hormonal balance in a group of women exercising SGW. In total the group of 10 women finished all criteria, like: blood tests, and regularly exercised for 4 months with an instructor (weekly: 2 times 70 minutes each), and alone at home 15 minute.

Biochemical parameters (blood count, anti-TPO); hormone levels (FSH, LH, estradiol, prolactin, cortisol, AMH, TSH); leukocyte subpopulations (neutrophils, eosinophils, monocytes, lymphocytes - based on FSC, FCC, CD45, CD14); lymphocyte subpopulations – cells: B CD19+; T CD3+, T-activated CD3+DR+, cytotoxic-suppressor and T-helper CD8, CD4, and NK (CD3-CD56+CD16+), NKT (CD3+CD56+CD16+).

The results of the study show the sense of SGW practice. And the further research for larger, homogeneous groups and diagnostic parameters are important.

Longevity Medicine in Practice

Joanna Bensch

President of the Management Board of Longevity Center

The substantial impact of social relationships on health and longevity cannot be overstated, marking a new era in the field of longevity focused medicine. Longevity is a trend that's set to significantly influence the future of preventive medicine. To truly capitalize on this trend, a harmonious integration of physical, mental, and emotional well-being is essential, with social connections playing a critical role in this equation. The forefront of personalized preventive medicine now focuses on in-depth analysis of aging biomarkers and cutting-edge diagnostic and intervention protocols, all tailored to enhance every facet of health. In the area of clinical implementation of age science and longevity focused medicine, we are correlating a large number of tests and diagnostic tools with possible interventions which can be measures and validated and biomarkers of aging. In our clinics we focus strongly not only on the physical aspects of human health but looking for the underlining causes and risk factors of disease, which are strongly correlated with our mental and emotional wellbeing.

SESSION IV: LIFESTYLE MEDICINE FOR LONGEVITY – HEALTHY RELATIONSHIPS

Online pornography: functional or harmful?

Piotr Rzymiski, Prof. PhD

Department of Environmental Medicine, Poznan University of Medical Sciences

Online pornography is a multibillion-dollar industry due to a global increase in Internet accessibility and technological progress, particularly in streaming media that allow users to continuously watch content, usually a video, without the need to download it. It has been broadly demonized as the source of multidimensional harm to human health, though such perception is mostly based on ideological taboo-driven thinking rather than scientific evidence that places it in an appropriate context. No data convincingly shows that pornography can cause sexual dysfunction in men, despite such an assumption being highly publicized due to misunderstanding a correlation for causation. There are also substantial differences in motivations and patterns of pornography use between men and women. Pornography consumption can be functional in some contexts and spark novel interest in sex life. At the same time, overuse, early initiation, and unintentional exposure may have consequences for future sexual satisfaction and relationship quality. Therefore, whether online pornography shall be age-restricted, in a manner similar to alcohol, shall be publicly discussed.

What a kiss is for? Immunological point of view

Grzegorz Dworacki, Prof. MD, PhD

Department of Immunology, Head of the Chair of Pathomorphology and Clinical Immunology, Poznan University of Medical Sciences, Poznan, Poland

Kissing triggers a series of chemical reactions in the brain, including a burst of the hormone oxytocin, known as the 'love hormone'. It increases feelings of affection and attachment and probably promotes monogamy. But a kiss also seems to have an important immunological function in vertebrates, including humans. It appears to be a key player in driving heterozygous matching of the MHC gene between females and males, giving their children the chance for better recognition of pathogens as well as more efficient guarding of the integrity of the genome by screening protein quality.

It's intimacy only about sex?

Ioan Hanes, MD

Military Hospital in Brussels, Belgium, vice-chairman of the European Lifestyle Medicine Organization

In a world where individualism is promoted, the need to connect is even stronger. The virtual world does not seem to be enough, so people are looking for other forms to be closer to each other. Sex is still a way to build up an intimacy, but is this enough? What is happening with people after a trauma? Or the ones who are living with chronic conditions? Is intimacy related to our sex education? How can we challenge our sexual scripts? The presentation will try to answer all these questions through the lenses of a sexologist and lifestyle medicine specialist.

From relationship with self to healthy longevity

Anna-Barbara Patallas, MSc, Eng. Dip NT

Jaremi and Barbara Grześkowiak Therapy Center s. c., Poznan, Poland

I. Introduction

The requirements for the best relationship with self as a path to healthy longevity.

II. Sleep

The significance of sleep for body regeneration and mental health.

Practical tips on improving sleep quality and building healthy sleep habits.

III. Nutrition

The role of balanced diet in maintaining optimal physical and mental health.

Suggestions for incorporating healthy eating habits into daily routines.

IV. Physical activity

Benefits of regular physical activity for physical and mental fitness.

Practical tips on integrating physical activity into daily schedule and staying motivated to exercise regularly.

V. Other components of well-being

Mindfulness – the practice of mindfulness and meditation as ways to strengthen relationship with oneself and the environment. Health benefits.

Happiness – the importance of laughter and joy in everyday life for optimal health.

Social relationships – the impact of social relations on health.

VI. Conclusions

WORKSHOPS

Hatha yoga

Marlena Mielcarek, MSc

Physical Education and Sport Department, Poznan University of Medical Sciences, Poznan, Poland

Why yoga?????

Because yoga teaches us to find ourselves, our limitations, expand our possibilities and acquire the ability to truly relax internally. It gives us time to remember who we are and whether we've forgotten ourselves swept up in the whirlwind of life.

The constant practice of yoga brings short and long term effects, they are like rewards for the body and mind. We look younger, we feel better, our body looks perfect. We live longer!!!!

Quoting Gurujegi's saying. "Exercise and everything will come on its own".

Slavic Gymnastics for Women - mindful body practice

Agnieszka Pluto-Prądzynska, PhD

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has preventive effect, reduce the risk and consequences of many diseases. SGW as other psychophysical systems, like e.g. yoga, can affect women's health.

During the workshop you can learn the rules, few exercises, which you can practice than alone at home.

Important – please take small pleated or middle-size towel, sportswear and socks.

From desire to study to a balanced and successful career

Ania Dąbrowska

BSc Desire2study Ltd. Psychologist in Management with passion for mentoring and supporting aspiring medical professionals.

The journey from school to getting a job and succeeding as a professional can be long and challenging. Having built a great career and gone through the burnout myself I know first hand how important our own self-development and self-awareness is.

It all begins with listening to our desires, our body and mind. These are good basis for boosting our confidence, building our ability to make the right choices, and finally creating a healthy work-life balance.

During the workshops we will focus on the individual's goals and motivation. The attendees will learn the techniques of a successful interview and explore ways to a well-balanced productivity, not only at work but also in personal life.

The primary aim of the workshop is to equip the attendees with the tools which will support them during the career, and at the very least to create an interest in various techniques which they will be able to explore further and use as their weapon against the burnout.

The 45 minutes invested in this workshop might be one of the best investments you make.