

EDITORIAL

Motor activity is, next to cognitive and social, the activity that has accompanied humans through the evolution in a special way, defining man throughout as a unique earthly living being. Through the interaction of these three factors, an incredibly efficient and unrivaled system developed which perfectly meets the human need for work (imagine the work of a vascular surgeon, a neurosurgeon, a conservator, a pilot ...), art and culture (picture a violin virtuoso, a painter or a sculptor, a dancer or an actor ...), and sports (think of a gymnast's or a track and field athlete's command of their body; a skier's, or a tennis, basketball or soccer player's mastery of the necessary sports equipment ...). However, the rapid development and diffusion of online technologies, communication via social media, and digitalization of society, the need for motor activity or, indeed, any kind of physical exertion has all but disappeared from daily life. The enormous increase in sedentary jobs (by no less than 83 percent since 1950) coupled with growing screen time (in children, adolescents and adults alike, which presently amounts to over 7.5 hours per day) is reflected in an ever more sedentary society (10 +/- 2h of sitting time per day) and seriously threatening human health. A sociology of sedentarism is dramatically on the rise and represents the new reality. It is safe to assume that the generations of children and adolescents who perceive this way of living as completely natural will be at even greater risk. The human organism may be uniquely flexible and plastic, but it is unrealistic to expect the physiological mechanisms established over millions of years to be able to change and adapt in such a short time. In ways unnoticeable and probably incomprehensible to most, physical inactivity is becoming public health enemy number one.

From the results of numerous studies based on these facts, we can conclude that we display safe and responsible health-related behavior when we engage daily in suitably intense physical activity for a sufficient amount of time, while allowing ourselves to be sedentary or physically inactive infrequently and for the shortest amounts of time possible. The ever emerging and progressively advanced studies in this field are aimed at discovering new possibilities and systemic solutions, shedding light on the grey areas, and proposing effective and systemic interventions, also by including the digitized world and modern technology. Their adaptability to an individual's role in modern society, one's profession, environment, and especially gender and age, is of the utmost importance. By studying the differences and mechanisms, as well as through a differentiation of selected interventions, and determination of the right intensity, length and content of exercise in real time, we can achieve better results, manage these factors better, and, above all, maximize their potential.

The first volume of this year's *Annales Kinesiologiae* journal provides fascinating views and new scientific facts that demonstrate the various aspects of the impact of motor activity, physical exercise and sports, both during childhood and adulthood, also highlighting the role of gender and, ultimately, the importance of defining the goal of the entire process. The latter can be achieving a target result in sports, enhancing the quality of a teaching process, or the reestablishment of functional balance – rehabilita-

tion. As always, the volume is rounded off by two reports: one introducing the Slovenian Mobile Brain/Body Imaging Laboratory (SloMoBIL), a new unit of the Laboratory of the Institute for Kinesiology Studies of the Science and Research Centre Koper, and the other presenting a recently published book: *Safe and with Joy on a Motorbike*. Even in these we can perceive the new horizons and fields where quality physical/sports activities can be a guarantee of health and success and, even more so, of safety and quality of life.

Rado Pišot, PhD, Editor-in-Chief

UVODNIK

Gibalna aktivnost je bila ob kognitivni in socialni tista, ki je človeka spremljala skozi evolucijo na prav poseben način in ga ves čas opredeljevala kot edinstveno zemeljsko živo bitje. V prepletu teh treh dejavnikov je človek razvil neverjetno učinkovit in edinstven sistem, ki je zadovoljeval njegove življenjske potrebe do dela (predstavljajmo si delo žilnega kirurga, nevrokirurga ali restavtorja, pilota ...), umetnosti in kulture (virtuoz na violini, slikar ali kipar, plesalec, igralec ...) ter športa (upravljanje z lastnim telesom telovadca ali atleta; z rekviziti smučarja, igralca tenisa; z žogo – nogometaša ali košarkarja ...). S hitrim razvojem in razmahom spletnih tehnologij, komunikacije po socialnih omrežjih in digitalizacije družbe je potreba po gibalni aktivnosti in kakršnemkoli fizičnem naporu skorajda izginila iz vsakdanjega življenja. Enormen porast sedečih poklicev (kar za 83 % od leta 1950), ki se skupaj s povečanjem zaslonskega časa (otrok, mladostnikov in odrasle populacije – danes že več kot 7,5 ure dnevno) odraža v vedno bolj sedentranu družbi (čas sedenja okrog 10 ur), predstavlja resno grožnjo našemu zdravju. Sociologija sedentarizma je v grozljivem vzponu in predstavlja novo življenjsko realnost. Predvidevamo lahko, da bodo generacije otrok in mladostnikov, ki tak način življenja sprejemajo kot povsem naraven pojav, posledično še veliko bolj ogrožene. Človeški organizem je sicer edinstveno prilagodljiv in plastičen, vendar pa ni mogoče pričakovati, da bi se fiziološki mehanizmi, ki smo jih vzpostavljali milijone let, zmogli prilagoditi in spremeniti v tako kratkem času. Nezavedno in gotovo večini še nerazumljivo postaja tako gibalna neaktivnost prvi in največji sovražnik zdravja današnje družbe.

Upoštevajoč številne raziskave lahko na navedenih dejstvih zaključimo, da je varno in do našega zdravja odgovorno obnašanje takrat, ko skrbimo, da smo na dnevni ravni dovolj časa in ustrezno intenzivno aktivni, vendar moramo hkrati poskrbeti, da smo tudi čim manj časa in v čim krajših obdobjih sedeči oz. gibalno neaktivni. Vedno nove in naprednejše raziskave področja si za cilj med drugim postavljajo iskanje novih možnosti in sistemskih rešitev, osvetljevanje sivih con, odpiranje učinkovitih in sistemskih intervencij tudi z vključevanjem digitaliziranega sveta in sodobnih tehnologij. Gotovo je izredno pomembna prilagodljivost posamezni vlogi človeka v sodobni družbi, poklicu, okolju, predvsem pa spolu in starosti. S preučevanjem razlik in mehanizmov ter diferenciacijo izbranih intervencij, prilagojenega dimenzioniranja in vsebine vadbe v realnem času lahko iščemo večji učinek, lažje upravljanje omenjenih dejavnikov, predvsem pa njihov boljši izkoristek.

V prvem zvezku letošnje revije *Annales Kinesiologiae* nam avtorji ponujajo zanimive poglede in nova znanstvena dejstva, ki dokazujejo različne dimenzije vpliva gibalne aktivnosti, vadbe in športa tako v obdobju otroštva kot odraslosti, s pomembno vlogo spola in ne nazadnje opredeljenosti cilja samega procesa. Slednji je lahko podrejen športnemu rezultatu, kakovosti učnega procesa ali vzpostavljanju funkcionalnega ravnovesja – rehabilitaciji. Tudi tokratni zvezek zaključujemo z dvema poročiloma, in sicer predstavitev nove enote Laboratorija Inštituta za kineziološke raziskave ZRS Koper – Slovenian Mobile Brain/Body Imaging Laboratory (SloMoBIL) ter predstavitev

nove knjige *Varno in z veseljem na motor*. Tudi v slednjih lahko zaznamo nove širine in področja, na katerih kakovostna gibalna/športna aktivnost predstavlja zagotovilo za zdravje in uspeh, predvsem pa varnost in kakovostno življenje.

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