

KINESIOLOGICAL ANALYSIS OF DIFFERENCE IN APPLICATION OF THE BODY BUILDING AND CROSSFIT TRAINING METHOD

KINEZIOLŠKA ANALIZA RAZLIKA U PRIMJENI METODA TRENINGA BODY BUILDINGA I CROSSFITA

BRANIMIR MIKIĆ¹, JOVANA BOZOLJAC², VLADIMIR IVANEK³,
SEMIR BOJIĆ⁴, EDISA ŠLJIVIĆ²

¹Educational Faculty, University of Travnik, Bosnia and Herzegovina, ²Independent researcher, Bosnia and Herzegovina, ³FPMOZ University of Mostar, Bosnia and Herzegovina, ⁴Mixed high school, Živinice, Bosnia and Herzegovina

BRANIMIR MIKIĆ¹, JOVANA BOZOLJAC², VLADIMIR IVANEK³,
SEMIR BOJIĆ⁴, EDISA ŠLJIVIĆ²

¹Edukacijski fakultet Univerziteta u Travniku, Bosna i Hercegovina, ²Nezavisni istraživač, Bosna i Hercegovina, ³FPMOZ Sveučilište u Mostaru, Bosna i Hercegovina, ⁴Mješoviti školski centar, Živinice, Bosna i Hercegovina

Correspondence:

Branimir Mikić

Educational Faculty, University of Travnik
branutuzla@gmail.com

Korespondencija

Branimir Mikić

Edukacijski fakultet Univerziteta u Travniku
branutuzla@gmail.com

Abstract: The main aim of this research is to identify the kinesiological differences in approaches and methods of training in the field of Crossfit and Bodybuilding, based on the kinesiological, anthropological and technical characteristics, as well as to determine the difference between recreationists and athletes in engagement programs such as Crossfit and Bodybuilding. The survey was conducted on a sample of 84 subjects, namely: 48 recreationists and 36 athletes. Research results show that a far greater number of recreationists are engaged in Bodybuilding compared to athletes. What is the main characteristic of this study is that the recreationists or athletes are not sufficiently informed about the Crossfit program and that it is rarely used in recreational and training activities.

Keywords: bodybuilding, crossfit, training, athletes, recreational athletes, differences.

Sažetak: Osnovni cilj ovog istraživanja je utvrđivanje kinezioloških razlika u pristupu i načinu treniranja u oblasti Crossfita i Bodybuildinga, sa stanovišta njegovih kinezioloških, antropoloških i tehničkih obilježja, kao i utvrđivanje razlike između rekreativaca i sportaša u angažiranosti u programima Crossfita i Bodybuildinga. Istraživanje je sprovedeno na uzorku od 84 ispitanika, i to: 48 rekreativaca i 36 sportaša. Rezultati istraživanja pokazuju da se daleko veći broj rekreativaca bavi Bodybuildingom u odnosu na sportaše. Ono što je osnovna karakteristika ovog istraživanja jeste to, da ni rekreativci, a ni sportaši nisu dovoljno informirani o programu Crossfita i da ga nedovoljno primjenjuju u rekreativnim i trenažnim aktivnostima.

Cljučne riječi: bodybuilding, crossfit, trening, sportaši, rekreativci, razlike.

INTRODUCTION

*Our greatest strength is not to never fall,
but every time we fall - we lift up.*

Confucius

Bodybuilding can be described as a sport in which a worker raising the weights and training on the machines builds and transforms his body - in order to gain a higher muscular weight, strength and fitness. Muscles strengthen in time and take on a new - visually more beautiful form. Bodybuilding is somehow a way of life, for many it is only a pleasant recreation, and for some it serves as an irreplaceable supplemental exercise and help in achieving top results in another sport (Mikić et al., 2000).

Lately, it is becoming more and more popular among the recreationists working as a crossfit as one of

Uvod

*Naša najveća snaga nije u tome da nikad ne padnemo,
već da se svaki put kada padnemo – podignemo.*

Konfucije

Bodybuilding možemo opisati kao sport u kojem vježbač dižući utege i treniranjem na spravama izgrađuje i preoblikuje svoje tijelo – kako bi dobio kvalitetniju mišićnu masu, snagu i kondiciju. Mišići tako vremenom jačaju i poprimaju jedan novi – vizualno ljepši oblik.

Bodybuilding je nekima i način života, mnogima je samo ugodna rekreacija, a nekima služi kao nezamjenjivo dopunsko vježbanje i pomoć u postizanju vrhunskih rezultata u nekom drugom sportu (Mikić i sur., 2000).

U zadnje vrijeme je sve više popularnije među rekreativcima bavljeno crossfitom kao jednim od najboljih

the best training systems. Certain methods of training, exercises and training protocols from crossfit are also used successfully in the fitness preparation of athletes, especially in martial arts.

Preparing an organism for everyday activities and acting on a versatile development of the trainer is the main goal of crossfit. Crossfit training is conceived as the basis for other sports disciplines. Crossfit is a "core" that represents the center of conditioning. It focuses on the main and central axis of the human body, through running, throwing, and striking. Conceptually, it wants to act from inside to outside. Considering the elements of gymnastics, weight lifting, cardio training, weight training, plyometry, functional movements, crossfit causes a wider adaptation stimulus, with everyday learning of skills. The crossfit movement also found its place in competitive disciplines. The concept is subordinate to the development of 10 motor and functional abilities (cardiovascular and respiratory endurance, general durability, strength, flexibility, strength, speed, coordination, agility, balance, precision).

Crossfit is primarily a training system. Crossfit is defined as continuously variable functional movements performed at high intensity (Mikić et al., 2016).

Crossfit is strength training and fitness - a program designed to challenge the broader adaptation response of an organism. It is based on short, intensive and varied trainings. It prepares the body to be good in several things, not just one.

Crossfit's goal is to prepare us for everyday activities. The idea is to constantly change the training so that the body never adapts to what we are preparing. By combining gymnastics, lifting, cardio training, exercise with your own body, plyometry, functional movements, etc. it also causes the body to learn new skills.

In all exercises, the more muscles work at the same time, and in most exercises, most of the exercises affect the stomach and lower part of the back, which are most common in most people as the weakest of the links (Đurašković, 2011).

Even if we add this to the minimum interval between exercises, we get a very powerful tool for burning fat and building muscles.

Functional crossfit training is based on a large selection of complex exercises that simulate movements from everyday life and sports, and as a rule involve multiple muscle groups. They use a variety of trainers and aids. This way of training was recognized by many Hollywood actors, models, athletes.

Requirements for training are: kettlebells, medical balls, gymnastics, plyometric boxes of various sizes, ropes,

sustava vježbanja. Određena metodika treninga, vježbe i protokoli vježbanja iz crossfita se uspješno koriste i u kondicijskoj pripremi sportaša, pogotovo u borilačkim sportovima.

Pripremanje organizma za svakodnevne aktivnosti i djelovanje na svestran razvoj vježbača je osnovni cilj crossfita. Crossfit vježbanje je zamišljeno kao temelj ostalim sportskim disciplinama. Crossfit je „jezgra“ što predstavlja središte kondiciranja. U njemu se fokusira na glavnu i središnju osu ljudskoga tijela, kroz trčanje, bacanja i udaranja. Konceptualno se želi djelovati od unutrašnjosti prema vani. Obzirom da sadrži elemente gimnastike, dizanja tegova, kardio treninga, treninga sa vlastitom težinom, pliometriju, funkcionalne pokrete, crossfit izaziva širi adaptacijski podražaj, uz svakodnevno učenje vještina. Pokret crossfita je našao svoje mjesto i u takmičarskim disciplinama. Koncept je podređen razvoju 10 motoričkih i funkcionalnih sposobnosti (kardiovaskularna i respiratorna izdržljivost, opća izdržljivost, snaga, gipkost, jakost, brzina, koordinacija, agilnost, ravnoteža, preciznost).

Crossfit je prije svega sustav treninga. Crossfit definiramo kao stalno promijenjive funkcionalne pokrete koje izvodimo pri visokom intenzitetu (Mikić i sur., 2016).

Crossfit je trening snage i kondicije - program dizajniran sa namjerom da izazove što širi adaptacijski odgovor organizma. Bazira se na kratkim, intenzivnim i raznolikim treninzima. On priprema tijelo da bude dobro u više stvari, a ne samo u jednoj.

Cilj crossfit-a je da nas pripremi za svakodnevne aktivnosti. Ideja je stalno mjenjati treninge, tako da se tijelo nikada ne adaptira na ono što mu spremimo. Kombinirajući gimnastiku, dizanja, kardio trening, vježbe sa vlastitim tijelom, pliometriju, funkcionalne pokrete itd. ujedno izaziva tijelo i uči novim vještinama.

Bit kod svih vježbi je da što više mišića radi istovremeno, a u principu većina vježbi najviše pogađa trbuh i donji dio leđa, što su kod većine ljudi i najslabije karike (Đurašković, 2011).

Još ako tome pridodamo i minimalne odmore između vježbi, dobijamo vrlo moćno oruđe za sagorijevanje masti i izgradnju mišića.

Funkcionalni crossfit trening temelji se na velikom izboru složenih vježbi koje simuliraju pokrete iz svakodnevnog života i sporta, te u pravilu uključuju više mišićnih skupina. U njima se koriste najrazličitiji trenažeri i pomagala. Ovaj način treniranja prepoznali su i mnogi hollywoodski glumci, modeli, sportaši.

Rekviziti koji se koriste za treninge su: girje (kettlebells), medicinske lopte, gimnastičke karike, pliometriji-

screws, elastic tape, bulk bag, slosh pipe, weights of various sizes and weights (Freeman, 2007, Bašić et al, 2008, Đurković, 2011, Mikić and sur., 2016), and there is of course a great repertoire of exercises that are performed only with the weight of one's own body. So there are no isolation exercises like bodybuilding type biceps, triceps, etc.

The main aim of this paper is to determine the kinesiological differences in approach and method of training in the fields of crossfit and bodybuilding, from the point of view of their basic kinesiological, anthropological characteristics of the art, as well as the establishment of differences between athletes and recreationists in engagement in crossfit and bodybuilding programs.

METHODS

Sample respondents

The sample of respondents is made up of 84 entities of athletes and recreational athletes. The sample of the respondents was differentiated into two subgroups, 48 of them and 36 athletes.

Sample variables

Variables are defined on the basis of a questionnaire designed for this research:

1. Sex
2. Age
3. Do you do bodybuilding?
4. Do you engage in crossfit activities?
5. Are you familiar with the bodybuilding program?
6. Are you familiar with the crossfit program?
7. Do you know the difference between bodybuilding and crossfit?
8. What is the basic difference between bodybuilding and crossfit?

The data were processed by the basic descriptive statistical survey through frequency and percentage.

RESULTS AND DISCUSSION

The basic descriptive parameters of the sent variables in both groups

The research included two groups of patients: 48 amateurs and 36 athletes.

Table 1. Sex and age

Skupina / group	M / M	Ž / F	Uzrast / Age
Rekreativci / Amateurs	30	18	19-46
Sportaši / Athletes	28	8	18-27

ske kutije različitih dimenzija, konopi, vijače, elastične trake, bugarska vreća, vodena cijev (slosh pipe), tegovi raznih veličina i težina (Freeman, 2007; Bašić i sur. 2008; Đurković, 2011; Mikić i sur., 2016), a tu je i naravno veliki repertoar vježbi koje se izvode samo sa težinom vlastitog tijela. Znači nema nikakvih izolacijskih vježbi kao u bodybuildingu tipa biceps, triceps, itd.

Osnovni cilj ovog rada je utvrđivanje kinesiolških razlika u pristupanju i načinu treniranja u oblastima krossfita i bodybuildinga, sa stanovišta njihovih osnovnih kinesiolških, antropoloških i tehničkih obilježja, kao i utvrđivanje razlika između sportaša i rekreativaca u angažiranosti u programima crossfita i bodybuildinga.

METOD RADA

Uzorak ispitanika

Uzorak ispitanika je sastavljen od 84 entiteta sportaša i rekreativaca. Uzorak ispitanika je diferenciran na dva subuzorka i to 48 rekreativaca i 36 sportaša.

Uzorak varijabli

Varijable su definirane na osnovu upitnika koji je konstruiran za ovo istraživanje:

1. Pol
2. Uzrast
3. Da li se bavite bodybuildingom?
4. Da li se bavite aktivnostima crossfita?
5. Da li ste upoznati sa programom bodybuildinga?
6. Da li ste upoznati sa programom crossfita?
7. Da li znate razliku između bodybuildinga i crossfita?
8. Koja je osnovna razlika između bodybuildinga i crossfita?

Metode obrade podataka

Podaci su obrađeni osnovnom deskriptivnom statistikom israženom kroz frekvencije i procenat.

REZULTATI I DISKUSIJA

Osnovni deskriptivni parametri praćenih varijabli u objema skupinama

Istraživanjem su obuhvaćene dvije skupine ispitanika i to: 48 rekreativaca i 36 sportaša.

Tabela 1. Pripadnost po polu i uzrastu

The results presented (Table 2 and 3) represent the opinion of recreationalists about bodybuilding and crossfit programs.

Table 2. Descriptive parameters monitored variables with amateurs

Varijable – rekreativci / Variables - Recreational	DA / YES %	NE / NO %	Djelimično povremeno / Partly occasionally %
1. Da li se bavite Bodybuildingom? / Do you do bodybuilding?	23 47,9	12 25,0	13 27,0
2. Da li se bavite aktivnostima Crossfita? / Do you engage in Crossfit activities?	6 12,5	34 70,0	8 16,6
3. Da li ste upoznati sa programom Crossfita? / Are you familiar with the Crossfit program?	6 12,5	32 66,0	10 20,0
4. Da li ste upoznati sa programom Bodybuildinga? / Are you familiar with the Bodybuilding program?	29 60,0	7 14,5	12 25,0
5. Da li znate razliku između Bodybuildinga i Crossfita? / Do you know the difference between Bodybuilding and Crossfit?	10 20,0	30 62,5	8 16,6
6. Navedite koja je osnovna razlika između Bodybuildinga i Crossfita Bodybuilding - 27 Crossfit - 7 / State what the basic difference between Bodybuilding and Crossfit is Bodybuilding - 27 Crossfit - 7	Bodybuilding – razvoj mišićne mase, jačanje muskulature Crossfit – razvoj svih motoričkih sposobnosti, kondicija i izdržljivost / Bodybuilding - development of muscle mass, strengthening of musculature Crossfit - development of all motor skills, fitness and endurance		

Prikazani rezultati (tabela 2 i 3) predstavljaju mišljenje rekreativaca o programima bodybuildinga i crossfita.

Tabela 2. Deskriptivni parametri praćenih varijabli kod rekreativaca

Table 3. Descriptive parameters of the observed variables with athletes

Varijable – sportaši / Variables - athletes	DA / YES %	NE / NO %	Djelimično povremeno / Partly occasionally %
1. Da li se bavite Bodybuildingom? / Do you do bodybuilding?	11 30,5	7 19,4	18 50,0
2. Da li se bavite aktivnostima Crossfita? / Do you engage in Crossfit activities?	10 27,7	11 31,3	15 41,0
3. Da li ste upoznati sa programom Crossfita? / Are you familiar with the Crossfit program?	12 33,3	13 36,4	11 30,3
4. Da li ste upoznati sa programom Bodybuildinga? / Are you familiar with the Bodybuilding program?	24 66,0	5 14,5	7 19,4
5. Da li znate razliku između Bodybuildinga i Crossfita? / Do you know the difference between Bodybuilding and Crossfit?	8 22,2	10 27,7	18 50,0
6. Navedite koja je osnovna razlika između Bodybuildinga i Crossfita Bodybuilding - 30 Crossfit - 18 / State what the basic difference between Bodybuilding and Crossfit is Bodybuilding - 30 Crossfit - 18	Bodybuilding – oblikovanje mišićne mase, razvoj snage Crossfit – kondicija, raznovrsnost treninga / Bodybuilding - muscle mass design, power development Crossfit - fitness, diversity of training		

Tabela 3. Deskriptivni parametri praćenih varijabli kod sportaša

Table 2 shows the descriptive parameters of the tracked variables for recreational athletes. Based on the results presented, it is obvious that a significant number of recreational athletes regularly or occasionally do Bodybuilding (36 or 75%), most of them are familiar with the bodybuilding program (41 or 85%) and most of them do not know the difference between Bodybuilding and Crossfit (62.5%).

As for Crossfit, most respondents do not do Crossfit (34 or 70.00%), they are not familiar with the Crossfit program (32 or 66.0%), and do not know the difference between Bodybuilding and Crossfit. 27 of them listed what the Bodybuilding program offered, and only 7 or 14.5% of what Crossfit's activities are.

U tabeli 2. prikazani su deskriptivni parametri praćenih varijabli kod rekreativaca. Na osnovu prezentiranih rezultata očigledno je da se značajan broj rekreativaca redovno ili povremeno bavi Bodybuildingom (36 ili 75%), da je većina njih upoznata sa programom Bodybuildinga (41 ili 85%) i da većina njih ne zna razlike između Bodybuildinga i Crossfita (30 ili 62,5%).

Što se tiče Crossfita većina ispitanika se ne bavi aktivnostima Crossfita (34 ili 70,00%), nisu upoznati sa programom Crossfita (32 ili 66,0%), i ne znaju razlike između Bodybuildinga i Crossfita. Njih 27 je navelo šta pruža program Bodybuildinga, a samo 7 ili 14,5% šta pružaju aktivnosti Crossfita.

Table 3 shows the descriptive parameters of the observed variables in athletes. We can say that 29 or 80.5% of athletes are regularly or occasionally involved in bodybuilding, that most of them are familiar with the bodybuilding program (31 or 85.5%) and that 26 or 72% of them are familiar with the difference between Bodybuilding and Crossfit. When it comes to Crossfit activities, a significant number of athletes are dealing with Crossfit activities regularly or occasionally (25 or 78.7%), with 23 or 63.3% familiar with Crossfit, with a difference between Bodybuilding and Crossfit 70.3%. 30% or 83% of them stated what the Bodybuilding program provides, and 18% or 50% of what Crossfit offers.

When comparing these two groups of respondents, we can say that recreational athletes and athletes are familiar with the bodybuilding program, while crossfit activities are more familiar to athletes than recreational athletes.

As for knowing the differences between Bodybuilding and Crossfit, it's obvious that athletes know better about those differences than recreationalists.

When it comes to engaging in the programs of Bodybuilding and Crossfit, it is obvious that there is a significant difference between athletes and recreational athletes. Recreative athletes are more engaged in Bodybuilding programs, and athletes in Crossfit activities.

CONCLUSION

The main aim of this paper is to determine the kinesiological differences in approach and method of training in the field of Crossfit and Bodybuilding, from the point of view of its kinesiological, anthropological and technical characteristics, as well as to determine the differences between recreationists and athletes in the engagement in Crossfit and Bodybuilding programs. The survey was conducted on a sample of 84 respondents: 48 recreative athletes and 36 athletes.

On the basis of the presented results, we can say that the recreative athletes are more engaged in the programs of Bodybuilding and are less familiar with the activities of Crossfit. On the other hand, athletes are more engaged in Crossfit activities, they are more familiar with Crossfit activities but are to some extent involved in the Bodybuilding program. It is obvious that Crossfit programs are still not well known to athletes, especially recreational athletes, and that additional training of trainers, athletes, recreational managers and recreational athletes is needed to achieve the efficiency and effectiveness of these programs.

It is certain that the benefits of Crossfit are reflected in:

U tabeli 3. su prikazani deskriptivni parametri praeenih varijabli kod sportaša. Možeme konstatovati da se redovito ili povremeno bavi Bodybuildingom 29 ili 80,5% sportaša, da je većina njih upoznata sa programom Bodybuildinga (31 ili 85,5%) i da je njih 26 ili 72% upoznato sa razlikom između Bodybuildinga i Crossfita. Kada su u pitanju aktivnosti Crossfita značajan broj sportaša se bavi aktivnostima Crossfita redovito ili povremeno (25 ili 78,7%), sa programom Crossfita je upoznato njih 23 ili 63,3%, sa razlikom između Bodybuildinga i Crossfita je upoznato njih 70,3%. Njih 30 ili 83% je naveo šta pruža program Bodybuildinga, a 18 ili 50,00% šta pruža program Crossfita.

Komparacijom rezultata ove dvije skupine ispitanika možemo konstatovati da su rekreativci i sportaši upoznati sa programom Bodybuildinga, dok su sa aktivnostima Crossfita više upoznati sportaši u odnosu na rekreativce.

Što se tiče poznavanja razlika između programa Bodybuildinga i Crossfita očigledno je da sportaši nešto bolje poznaju te razlike u odnosu na rekreativce.

Kada je u pitanju angažiranost u programima Bodybuildinga i Crossfita očigledno je da tu postoji značajna razlika između sportaša i rekreativaca. Rekreativci su više angažirani u programima Bodybuildinga, a sportaši u aktivnostima Crossfita.

ZAKLJUČAK

Osnovni cilj ovog rada bio je utvrđivanje kinesiolških razlika u pristupanju i načinu treniranja u oblasti Crossfita i Bodybuildinga, sa stanovišta njegovih kinesiolških, antropoloških i tehničkih obilježja, kao i utvrđivanje razlika između rekreativaca i sportaša u angažiranosti u programima Crossfita i Bodybuildinga. Istraživanje je provedeno na uzorku od 84 ispitanika, i to: 48 rekreativaca i 36 sportaša.

Na osnovu prezentiranih rezultata možemo konstatirati da su rekreativci više angažirani u programima Bodybuildinga i da su manje upoznati sa aktivnostima Crossfita. Za razliku od rekreativaca sportaši su više angažirani u aktivnostima Crossfita, više su upoznati sa aktivnostima Crossfita, ali su u određenoj mjeri uključeni u program Bodybuildinga. Očigledno je da programi Crossfita još uvijek nisu dovoljno poznati ni sportašima, a posebno rekreativcima i da je potrebno izvršiti dodatnu edukaciju trenera, sportaša, rukovodilaca rekreativnih aktivnosti i rekreativaca sa efikasnošću i učinkovitošću ovih programa.

Sigurno je da se prednosti programa Crossfita ogledaju u:

- increase and efficiency of energy systems
- improving the composition of the body
- increase the work capacity of the exercise
- variety of training sequences
- increase in strength and muscle mass
- the universal applicability of Crossfit

Crossfit's aim is to prepare trainees for the unknown and non-stereotyped. The specificity of Crossfit is in non-specialization, which relates to a constantly changing and highly intensive functional movement. It can be said that crossfit training takes what is most effective and complex in all sports, thus achieving a very diverse concept of training.

Crossfit and our life paths coincide in the fact that the greatest struggle is the one we lead with ourselves, but when we manage to overcome it, the steps we make are easier and we manage to see it further than others.

REFERENCES

- Bašić, M. & Bašić, D. (2008). *Trening s girjama (Kettlebells) u kondicijskom treningu sportaša i rekreativaca*, Zagreb, 6. Međunarodna konferencija „Kondiciona priprema“.
- Boyle, M. (2004). *Functional Training for Sport Champaign: Human Kinetics*.
- Durković, N. (2011). *Funkcionalni trening - najbolji mogući trening za ono što vas čeka u realnom životu - www.sportfitnessaveti.blogspot.hr - Bosanski Brod*.
- Freeman, R. (2007). *Kettlebells Training for High Quality of Life*. (<http://www.dragodoor.com/articles/kettlebell-training-for-a-high-quality-of-life/>)
- Jurak, I. (2015). *Funkcionalni trening kao prevencija i rehabilitacija*, Blue-Gym, stručni članak-<http://blue-gym.com/savjeti-strucnjaka/funkcionalni-trening/223-funkcionalni-trening-kao-prevencija-i-rehabilitacija>.
- Mikić, B. (2005). *Fitness & Wellness*, Mostar, Nastavnički fakultet.
- Mikić, B., Bajrić, O., Stanković, N., Ivanek, V. & Petrović, Z. (2016.) *Application of Functional training in high Sports and Recreation*. Banja Luka. *Sports Science And Health, volume 6, issue 2*.
- Mikić, B. & Bašić, I. (2014). *Kondicijska priprema*, Univerzitet u Travniku, Travnik.
- Mikić, B. & Hadžić, S. (2000). *Osnovi Bodybuildinga*, Tuzla, Filozofski fakultet.
- Mikić, B. & Mešić, M. (2008). *Priprema BodyBuildera za takmičenje*, Tuzla D.O.O „off-set“, Tuzla.
- Mikić, B., Zeljković, M. & Stanić, D. (2006). *Neurofiziološka i biomehanička struktura pokreta*. Mostar. Univerzitet u Mostaru Nastavnički fakultet.
- Mlinarić, M. (2012). *Funkcionalni trening*, Zagreb, 10. Međunarodna konferencija „Kondicijska priprema sportaša“.
- Pocrnja, B. (2016). *Kineziološka analiza u načinu planiranja i programiranja treninga u Body buildingu i crossfitu*. Travnik. Magistarski rad. Edukacijski fakultet Univerziteta u Travniku
http://gol.dnevnik.hr/clanak/ostali_sportovi/crossfit-sport-u-kojem-rekreativci-mogu-postati-profesionalci---359813.html
<http://workout.ba/primjer-funkcionalnog-crossfit-treninga/>.

- povećanju i efikasnosti energijskih sustava
- poboljšanju kompozicije tijela
- povećanju radnog kapaciteta vježbanja
- raznolikosti trenažnih sekvenci
- povećanju snage i mišićne mase
- univerzalnoj primjenjivosti Crossfita

Cilj Crossfita je pripremiti vježbače za nepoznato i nestereotipno. Specifičnost Crossfita je u nespecijalizaciji, koja se odnosi na stalno promjenjiv i visoko intenzivan funkcionalan pokret. Moglo bi se reći da je u Crossfit treningu uzeto iz svih sportova ono što je najučinkovitije, te složeno u jedan veoma raznolik koncept vježbanja.

Crossfit i naša životna putanja podudaraju se u tome da je najveća borba ona koju vodimo sa nama samima, ali kada je savladamo, koraci koje pravimo su laganiji i uspijevamo da vidimo dalje od drugih.

*Primljen: 18. oktobar 2017. / Received: October 18, 2017
Prihvaćen: 04. decembra 2017. / Accepted: December 04, 2017*