MINISTRY OF SPORT OF
THE RUSSIAN FEDERATION

THE LESGAFT NATIONAL STATE
UNIVERSITY OF PHYSICAL EDUCATION,
HEALTH AND SPORT

THE CENTRE OF TESTING, SELECTING AND ACCOMPANYING

SPORTS GIFTED CHILDREN

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CONTENTS

PROGRAMME OF INITIAL SELECTION

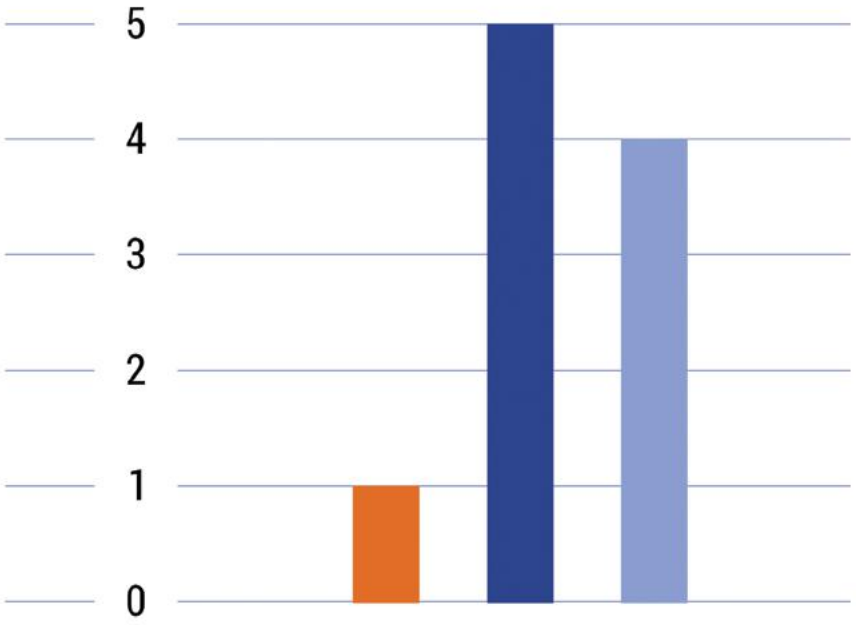
THE PROGRAMME OF INITIAL SELECTION
comprises a complex of psychological and pedagogical tests, medical-biological assessment with genetical analysis.

THE PROGRAMME INCLUDES
instructions of sports psychologist, sports doctor and coach-instructor on the event.

THE PROGRAMME IS DESIGNED
for those taking part in physical activities or sport.

THE PROGRAMME ALLOWS
to determine the inclination to different types of physical loads (aerobic, anaerobic, mixed) given by heredity; to research and assess important individual skills for physical activity (correlation of different types of muscular tissues, muscular tissues inclination to hypertrophy, speed of nervous impulse, intermuscular coordination, secretion of anabolic hormones, functioning of vasoconstrictive factors); to reveal basic predisposition to different events (speed-strength events, compound coordination events, cyclic events, competitive combat events, ball games, multi events) or to give recommendations for training, and also inclination to displaying physical qualities (strength, endurance).

EXAMPLE OF CONCLUSION ON GENETICAL ANALYSIS:



ANAEROBIC
5 THE GREATEST INCLINATION MARKS

MIXED
4 HIGH INCLINATION MARKS

AEROBIC
1 INCLINATION ABSENCE MARK

PHYSICAL QUALITIES

Genetical given inclination to displaying physical qualities (qualities rating at high inclination)

1. **Explosive strength**
2. **Dynamic strength**

FITNESS FOR SPORTS

Genetical given inclination to different events (groups rating)

1. **Speed-strength events**
2. **Competitive combat events**
3. **Compound coordination events**

PROGRAMME OF INITIAL SELECTION

PSYCHODIAGNOSTIC METHODS OFFERED BY THE PSYCHOLOGICAL SECTOR AT THE LESGAFT UNIVERSITY (ST. PETERSBURG) ON TESTING, SELECTION AND ACCOMPANYING SPORTS GIFTED CHILDREN.

INITIAL SELECTION PROGRAMME (FOR THOSE INTERESTED IN TAKING PART IN SPORT)

AIM	To discover predisposition to different events
VOLUME OF TESTING	- Tapping test
	- Stability measuring
	- Time reaction studies, reaction to moving object
	- Accuracy assessment of movement parameter reproduction (time, space, effort)
	- Proof test
	- Schulte methods
	- Wechster subtests
	- Method: «Motivation of beginning and continuation of training»

RESEARCH DURATION

PSYCHODIAGNOSTICS: NOT LONGER THAN 1 HOUR FOR A GROUP OF 2-3 INDIVIDUALS
GENETICAL ANALYSIS: NOT LESS THAN 25 DAYS OF TRAINING

PROGRAMME OF BASIC SELECTION

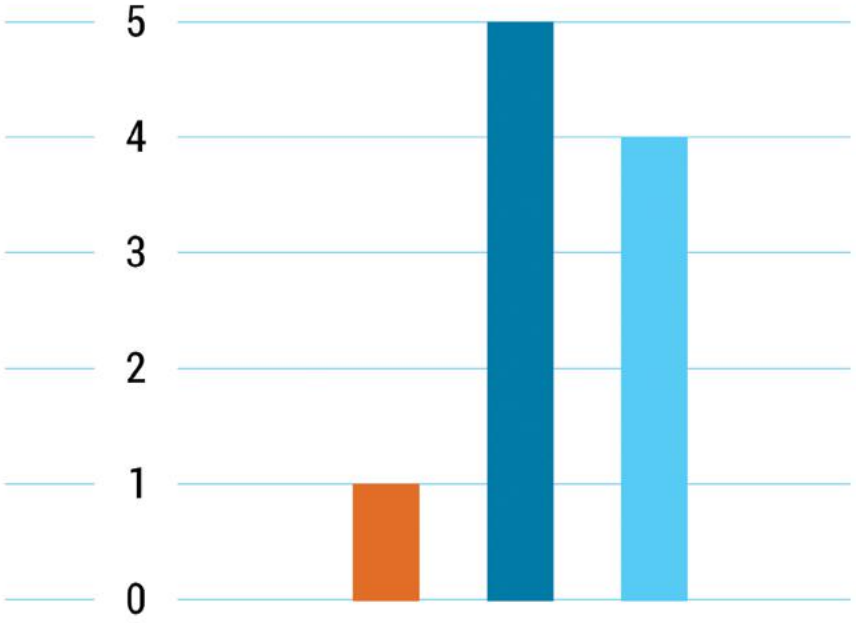
THE PROGRAMME OF BASIC SELECTION
comprises a complex of psychological and pedagogical tests, medical-biological assessment with genetical analysis, includes the programme of initial selection, also as well as a complex on profound assessment of sports qualities.

THE PROGRAMME INCLUDES
instructions of sports psychologist, sports doctor and coach-instructor on the event.

THE PROGRAMME IS DESIGNED
for those taking part in physical activities or sport on initial level.

THE PROGRAMME ALLOWS
to determine the inclination to different types of physical loads (aerobic, anaerobic, mixed) given by heredity; to research and assess important individual skills for physical activity (correlation of different types of muscular tissues, muscular tissues inclination to hypertrophy, speed of nervous impulse, intermuscular coordination, secretion of anabolic and catabolic hormones, action of vessels contraction, ATPh (adinazintriphosphorus acid) resynthesis or constitution peculiarities of connective tissue and inclination to increased traumatism, organism rehabilitation after loads, water delay level in the body); to reveal basic predisposition to different events (speed-strength events, compound coordination events, cyclic events, competitive combat events, ball games, multi events) or to give recommendations for training, and also inclination to displaying physical qualities (strength, endurance).

EXAMPLE OF CONCLUSION ON GENETICAL ANALYSIS:

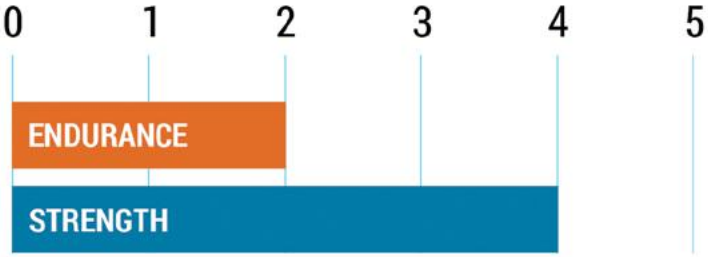


ANAEROBIC
5 THE GREATEST INCLINATION MARKS

MIXED
4 HIGH INCLINATION MARKS

AEROBIC
1 INCLINATION ABSENCE MARK

PHYSICAL QUALITIES
Balance of strength / endurance



PRIORITY OF STRENGTH OVER ENDURANCE

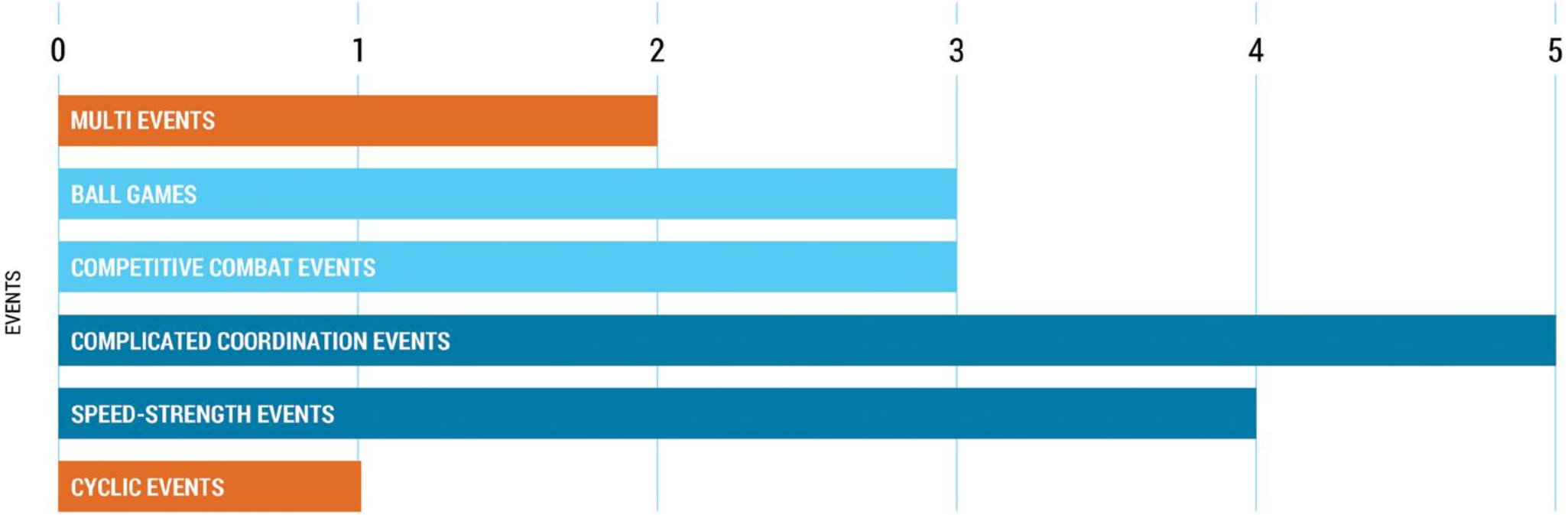
PHYSICAL QUALITIES
Genetical given inclination to displaying physical qualities (qualities rating at high inclination)

1 **Explosive strength**
2 **Dynamic strength**

PROGRAMME OF BASIC SELECTION

FITNESS FOR SPORTS

Genetic given predisposition to different events (group rating)



COMPLICATED COORDINATION EVENTS

5 THE GREATEST INCLINATION MARKS

RECOMMENDATIONS

- Diving
- Figure skating

SPEED-STRENGTH EVENTS

4 GOOD INCLINATION MARKS

RECOMMENDATIONS

- Shot putting
- Weight lifting

COMPETITIVE COMBAT EVENTS

3 MEDIUM INCLINATION MARKS

RECOMMENDATIONS

- Hit events

BALL GAMES

3 MEDIUM INCLINATION MARKS

RECOMMENDATIONS

- Volleyball
- Football

MULTI EVENTS

2 LOW INCLINATION MARKS

RECOMMENDATIONS

CYCLIC EVENTS

1 INCLINATION ABSENCE MARK

RECOMMENDATIONS

PROGRAMME OF BASIC SELECTION

PSYCHODIAGNOSTIC METHODS OFFERED BY THE PSYCHOLOGICAL SECTOR AT THE LESGAFT UNIVERSITY (ST. PETERSBURG) ON TESTING, SELECTING AND ACCOMPANYING SPORTS GIFTED CHILDREN

PROGRAMME OF BASIC SELECTION (FOR THOSE INTERESTED IN TAKING PART IN SPORT ON INITIAL LEVEL)

AIM	To reveal basic predisposition to different events as well as inclination to displaying physical qualities:
VOLUME OF TESTING	- Cycling: reaction time, tapping test, tapping test dosed
	- Compound-coordinating: Romberg test, dose accuracy of space parameters
	- Combat: reaction time, reaction to moving object
	- Situating: reaction to moving object, tapping test (taking into account specificity of the event)
	- Proof test
	- Schulte test
	- Wechstler subtests
	- Intellectual lability (10-20 aged Kostromina modification)
	- Information search
	- Strelau method (from youth age)
	- «Identification with a role an athlete» method
	- Scale of success perception (initial selection as tendency)
	- Research of coping stratagies
	- «At competitions» by Lovyagina (10-12 ages, adult variant method)
	- «Motivation of beginning and continuing training» method
RESEARCH DURATION	**PSYCHODIAGNOSTICS:** NOT LONGER THAN 1 HOUR FOR A GROUP OF 4 INDIVIDUALS **GENETICAL ANALYSIS:** NOT LESS THAN 25 DAYS OF TRAINING

PROGRAMME OF INDIVIDUAL SELECTION

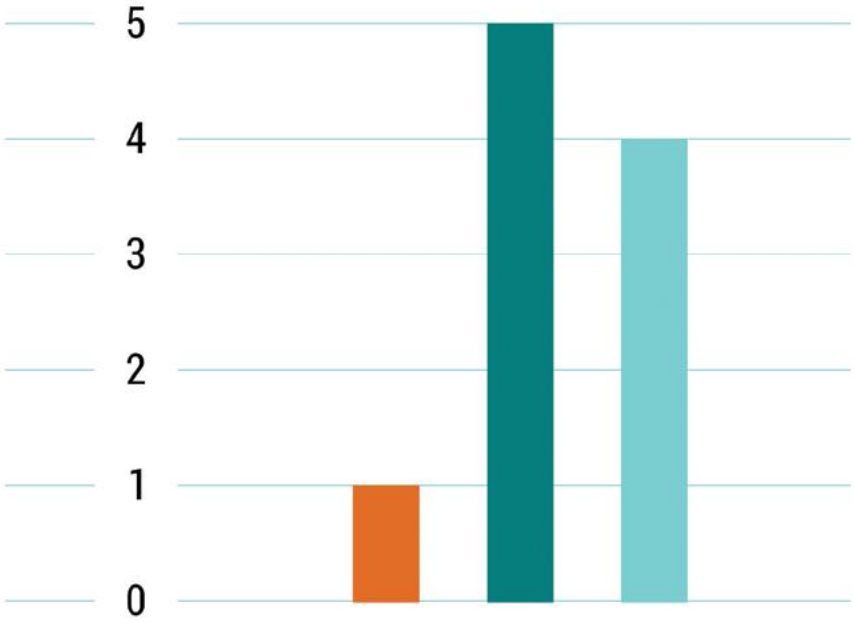
THE PROGRAMME OF INDIVIDUAL SELECTION
comprises psychological and pedagogical tests, medical-biological assessment with genetical analysis, includes the programme of basic selection and also a complex on deep individual athlete training.

THE PROGRAMME INCLUDES
instructions of sports psychologist, sports doctor and coach-instructor on the event.

THE PROGRAMME IS DESIGNED
for those taking part in sport on the level of lower perfection.

THE PROGRAMME ALLOWS
to determine the inclination to different types of physical loads (aerobic, anaerobic, mixed) given by heredity; to research and assess important individual skills for physical activity (correlation of different types of muscular tissues, muscular tissues inclination to general and extreme hypertrophy, speed of nervous impulse, inner and intermuscular coordination, speed of muscular tissue rehabilitation, amino acid comprehensibility by muscles, organism rehabilitation after loads, ATPh resynthesis and its detailed characteristics, water delay level in body; secretion of anabolic and catabolic hormones; action of vessels contraction, frequency and strength of heart rate; nutrition peculiarities; inclination to getting excessive weight, construction peculiarities and possibility of connective tissue rehabilitation and inclination to increased traumatism); to reveal predisposition to different events with detailed rating (more than 90 events), or to give detailed recommendations for training and also inclination to displaying physical qualities (different strength types, endurance, flexibility, agility).

EXAMPLE OF CONCLUSION ON GENETICAL ANALYSIS:

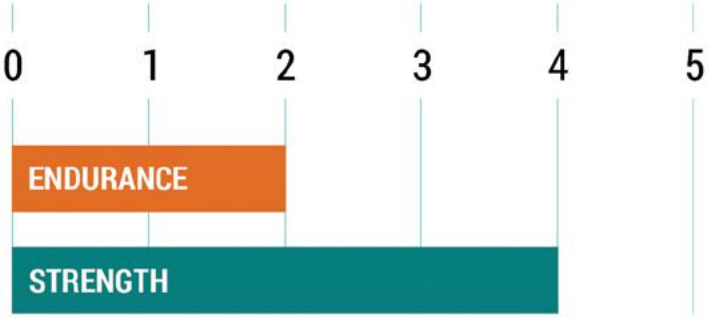


ANAEROBIC
5 THE GREATEST INCLINATION MARKS

MIXED
4 HIGH INCLINATION MARKS

AEROBIC
1 INCLINATION ABSENCE MARK

PHYSICAL QUALITIES
Balance of strength / endurance

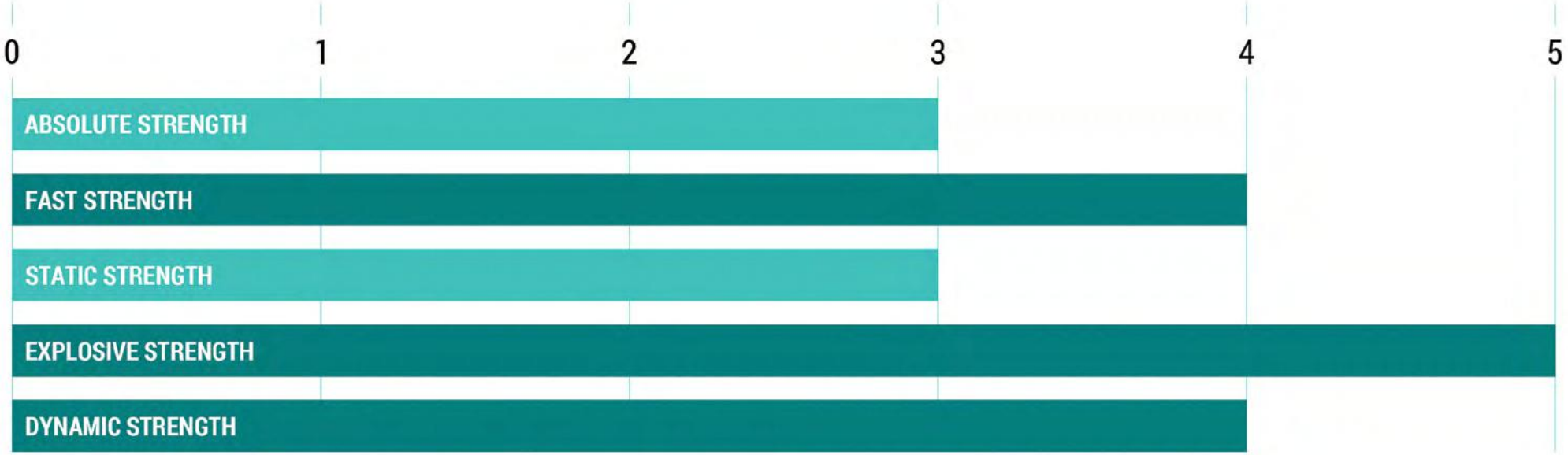


STRENGTH PRIORITY OVER ENDURANCE

PROGRAMME
OF INDIVIDUAL SELECTION

PHYSICAL QUALITIES

Genetic given inclination to physical qualities (different types of strength rating)



PRIORITY OF DEVELOPING AND REVEALING EXPLOSIVE STRENGTH

ABSOLUTE STRENGTH
3 MEDIUM INCLINATION MARKS

FAST STRENGTH
4 HIGH INCLINATION MARKS

STATIC STRENGTH
3 MEDIUM INCLINATION MARKS

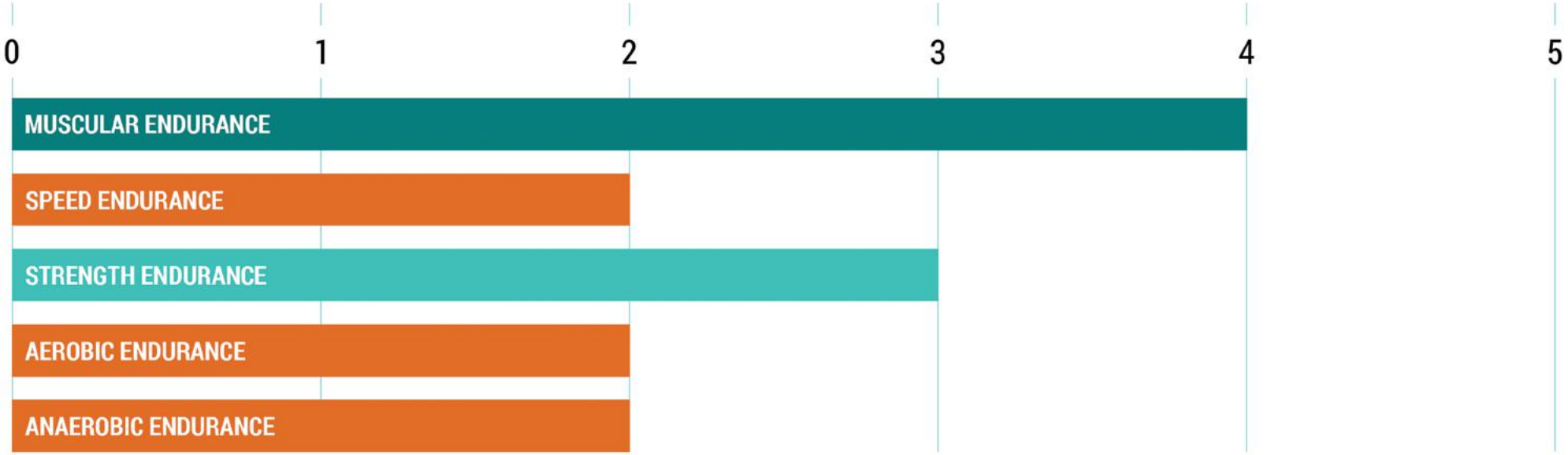
EXPLOSIVE STRENGTH
5 THE GREATEST INCLINATION MARKS

DYNAMIC STRENGTH
4 HIGH INCLINATION MARKS

PROGRAMME OF INDIVIDUAL SELECTION

PHYSICAL QUALITIES

Genetic given inclination to displaying physical qualities (different types of strength and endurance rating)



PRIORITY OF DEVELOPING AND REVEALING MUSCULAR ENDURANCE

MUSCULAR ENDURANCE
4 HIGH INCLINATION MARKS

SPEED ENDURANCE
2 LOW INCLINATION MARKS

STRENGTH ENDURANCE
3 MEDIUM INCLINATION MARKS

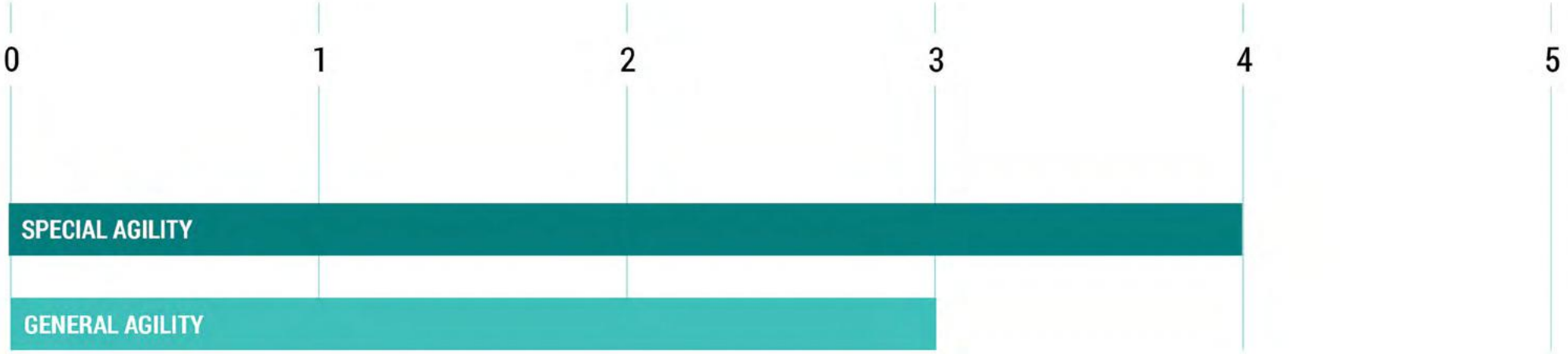
AEROBIC ENDURANCE
2 LOW INCLINATION MARKS

ANAEROBIC ENDURANCE
2 LOW INCLINATION MARKS

PROGRAMME
OF INDIVIDUAL SELECTION

PHYSICAL QUALITIES

Genetic given inclination to displaying physical qualities (agility variety rating)



PRIORITY OF DEVELOPING AND DISPLAYING SPECIAL AGILITY

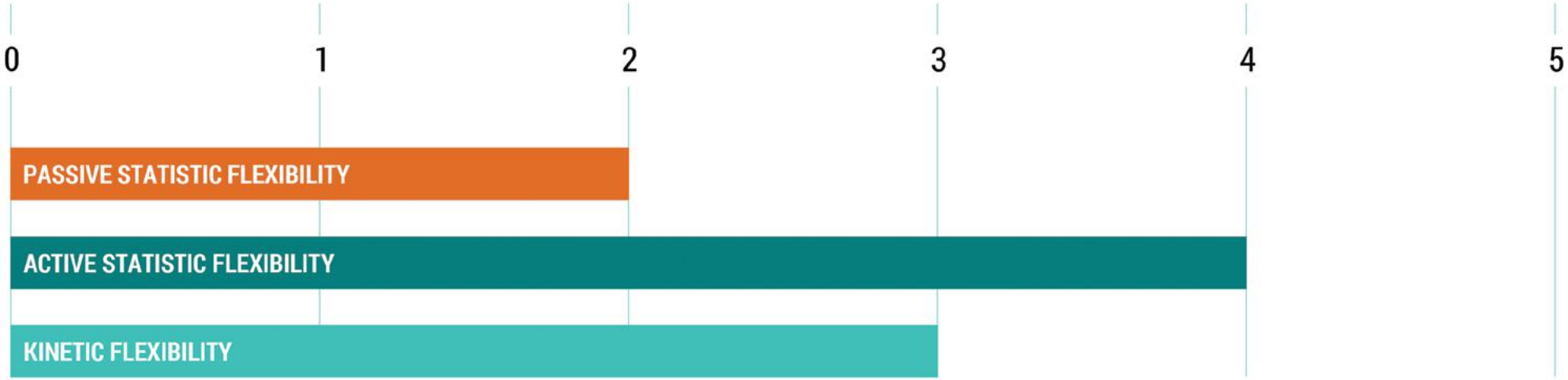
SPECIAL AGILITY
3 MEDIUM INCLINATION MARKS

SPECIAL AGILITY
4 HIGH INCLINATION MARKS

PROGRAMME OF INDIVIDUAL SELECTION

PHYSICAL QUALITIES

Genetic given inclination to displaying physical qualities (different types of flexibility rating)



PRIORITY OF DEVELOPING AND DISPLAYING ACTIVE STATISTIC FLEXIBILITY

PASSIVE STATISTIC FLEXIBILITY
2 LOW INCLINATION MARKS

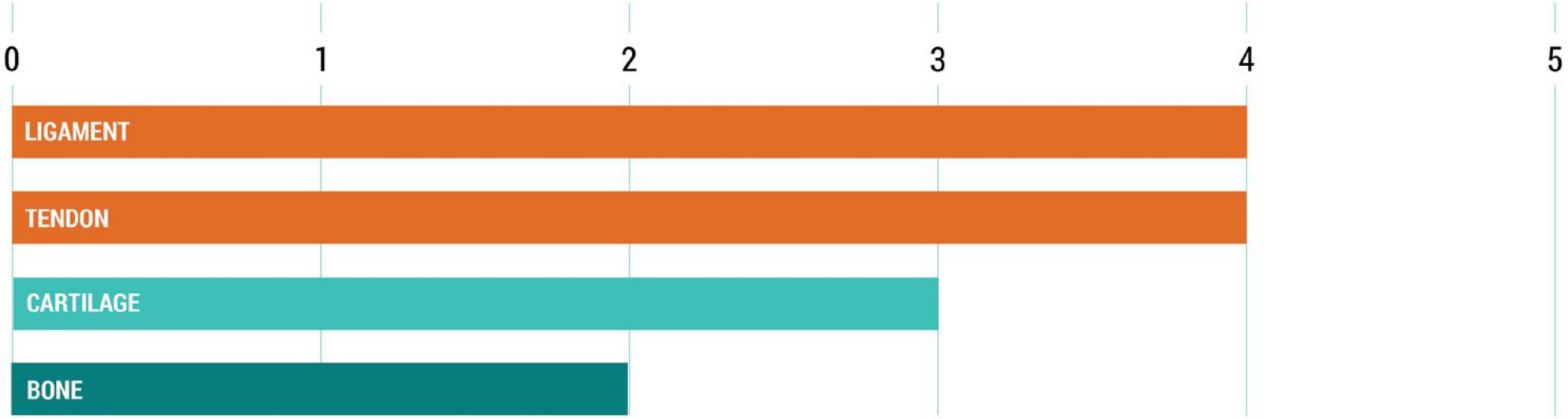
ACTIVE STATISTIC FLEXIBILITY
4 HIGH INCLINATION MARKS

KINETIC FLEXIBILITY
3 MEDIUM INCLINATION MARKS

PROGRAMME
OF INDIVIDUAL SELECTION

TRAUMATISM

Genetic given inclination to connective tissue traumatism



GENETIC GIVEN RISK OF INCREASED TRAUMATISM IS PRESENT

LIGAMENTS TRAUMATISM RISK
4 HIGH RISK MARKS

TENDONS TRAUMATISM RISK
4 HIGH RISK MARKS

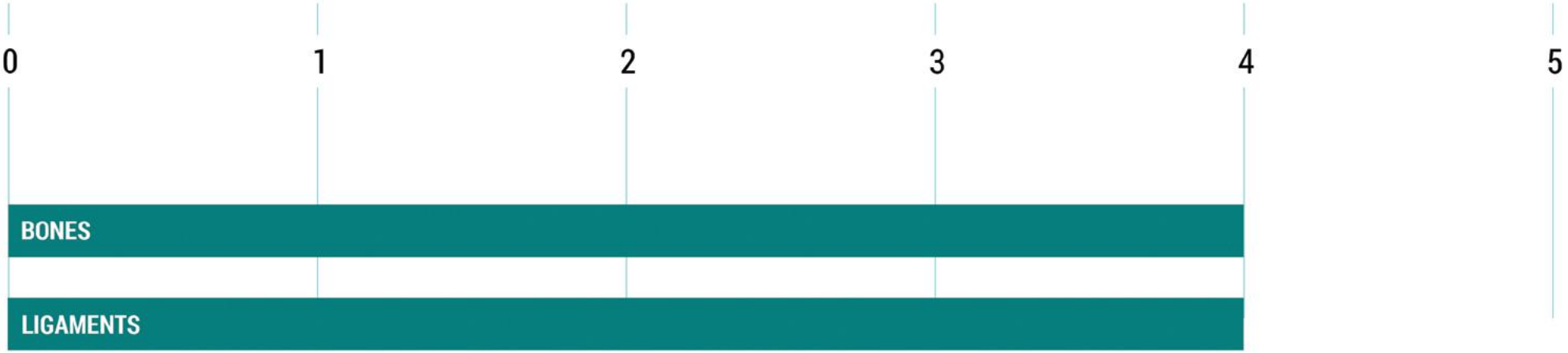
CARTILAGES TRAUMATISM RISK
3 MEDIUM RISK MARKS

BONES TRAUMATISM RISK
2 LOW RISK MARKS

PROGRAMME OF INDIVIDUAL SELECTION

PHYSIOLOGICAL REGENERATION LEVEL

Bones / ligaments



BONES REGENERATION

4 GOOD LEVEL MARKS

LIGAMENTS REGENERATION

4 GOOD LEVEL MARKS

PROGRAMME
OF INDIVIDUAL SELECTION

TISSUES INCLINATION TO WORKING HYPERTROPHY Bones / ligaments

BONES HYPERTROPHY
4 GOOD INCLINATION MARKS

LIGAMENTS HYPERTROPHY
2 BAD INCLINATION MARKS

DIET EFFECTIVENESS Low calorie/low carbohydrate

LOW CARBOHYDRATE
2 LOW EFFECTIVENESS MARKS

LOW CALORIE
3 MEDIUM EFFECTIVENESS MARKS

PROGRAMME OF INDIVIDUAL SELECTION

PSYCHODIAGNOSTIC METHODS OFFERED BY THE PSYCHOLOGICAL SECTOR OF TESTING AT THE LESGAFT UNIVERSITY (ST. PETERSBURG) ON TESTING, SELECTING AND ACCOMPANYING SPORTS GIFTED CHILDREN

PROGRAMME OF INDIVIDUAL SELECTION (FOR THOSE TAKING PARTING IN SPORT NOT LOWER THAN PERFECTION STAGE)	
AIM	To reveal individual peculiarities of athletes as resources of raising their competitiveness
VOLUME OF TESTING	- Cycling: reaction time, tapping test, tapping test dosed
	- Compound-coordinated: Romberg test, accuracy of space parameters dose
	- Combat: time reaction, reaction to moving object
	- Situating: reaction to moving object, tapping test (taking into account specificity of the event)
	- Intellectual labialization (10-12 aged in Kostromina modification)
	- Information search
	- Strelau method (youth age)
	- «Identification with a role an athlete» method
	- Scale of success perception (initial selection as tendency)
	- Coping strategies research
	- «At competitions» by Lovyagina method (10-12 ages, adult variant)
	- «Motivation to beginning / continuing practice» method
	- Stambulov method/Kuhl method
	- Motivation to achieving T.Ehlers success
	- R.Martens methods (competitive individual anxiety)
RESEARCH DURATION	**PSYCHODIAGNOSTICS:** NOT LONGER THAN 1 HOUR FOR A GROUP OF 2-3 INDIVIDUALS **GENETICAL ANALYSIS:** NOT LESS THAN 25 TRAINING DAYS

PROGRAMME
OF PROFESSIONAL INDIVIDUALIZATION

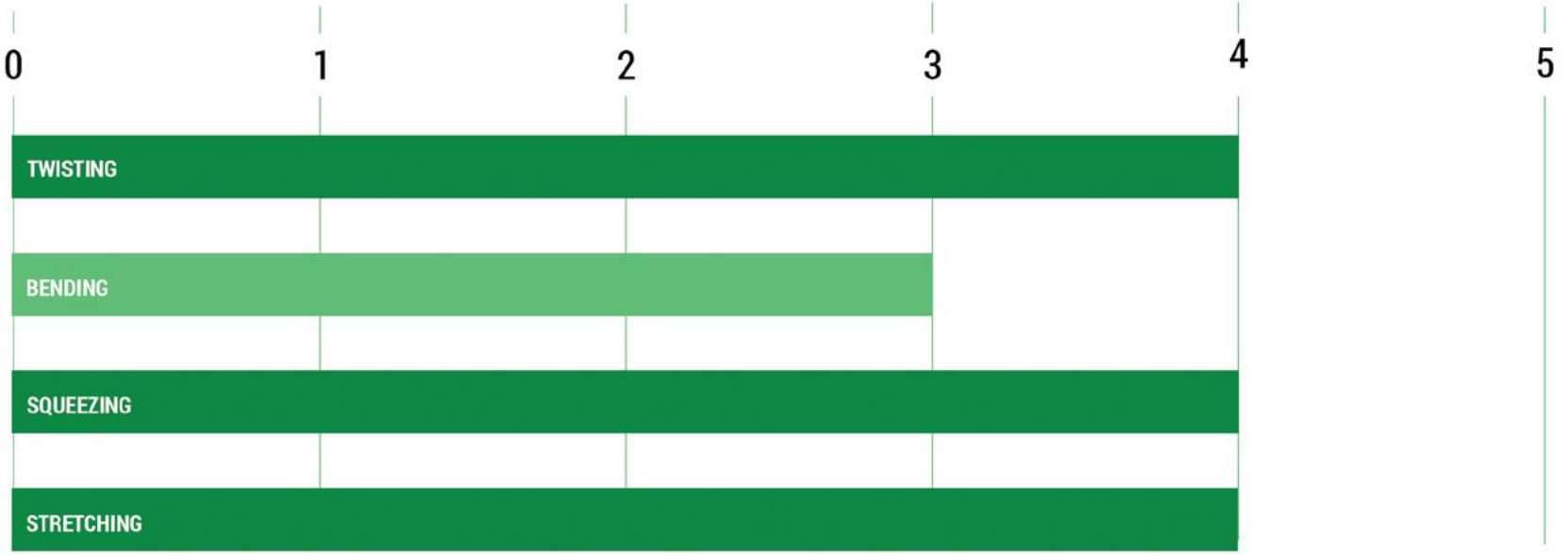
PROGRAMME OF PROFESSIONAL INDIVIDUALIZATION
comprises the complex of psychological and pedagogical tests, medical-biological assessment with genetic analysis, includes the programme of individual selection and also the complex of profound individual training of an athlete.

THE PROGRAMME INCLUDES
instructions of sports psychologist, doctor and coach-instructor on the event.

THE PROGRAMME IS DESIGNED
for those, who are interested in talking part in physical activities and sport especially for those practicing the event on professional level.

THE PROGRAMME ALLOWS
to determine the inclination to different types of physical loads (aerobic, anaerobic, mixed) given by heredity; to research and assess a number of important individual indices to physical activity (correlation of different types of muscular tissues and correlation of different quick-contracting muscular tissues, muscular tissue inclination to general, extreme myofibrela and sarcoplasmic hypertrophy, mTOR activity , speed of gluconeogenesis, muscules need for amino acids and their assimilability, nitrogen acid concentration and influence loads on its level; speed of nervous impulses; intermuscular and intramuscular coordination; recovery of muscular tissue, nervous system and hormonal background, neuromuscular transmission and muscular tissue effectiveness; excitability, conduction and contraction; postponed, delayed and fast recovery; risk of overtraining; ATPh resynthesis and its characteristics; ATPh synthesis in different systems; water delay in body; functioning of vasoconstrictive factors; frequency and strength of heartrate and work peculiarities of cardiovascular system; secretion of anabolic and catabolic hormons in details; nutrition peculiarities, inclination to getting excessive weight; roast or sweet consumption; construction peculiarities and recovery possibilities of connective tissue rehabilitation; detailed assessment of biomechanical peculiarities of bones, ligaments, cartilage, tendons, and inclination to increased traumatism);to give detailed recommendations for training, recovery, and sports nutrition.

BONE TISSUE STEADFASTNESS TO MECHANICAL INFLUENCE



BONE TISSUE STEADFASTNESS TO TWISTING
4 RAISED LEVEL MARKS

BONE TISSUE STEADFASTNESS TO BENDING
3 MEDIUM LEVEL MARKS

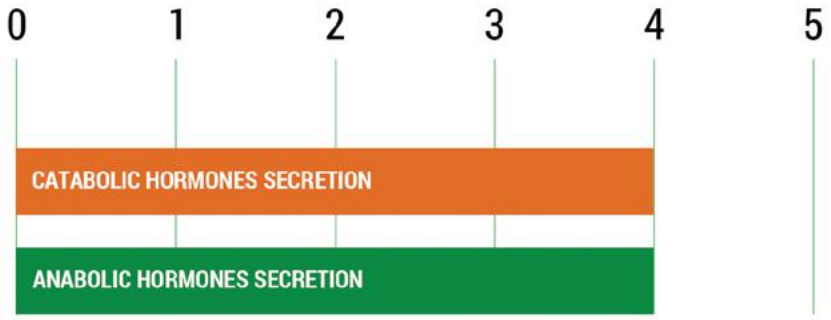
BONE TISSUE STEADFASTNESS TO SQUEEZING
4 RAISED LEVEL MARKS

BONE TISSUE STEADFASTNESS TO STRETCHING
4 RAISED LEVEL MARKS

PROGRAMME
OF PROFESSIONAL INDIVIDUALIZATION

BONE TISSUE CONDITION

HORMONES SECRETION LEVEL



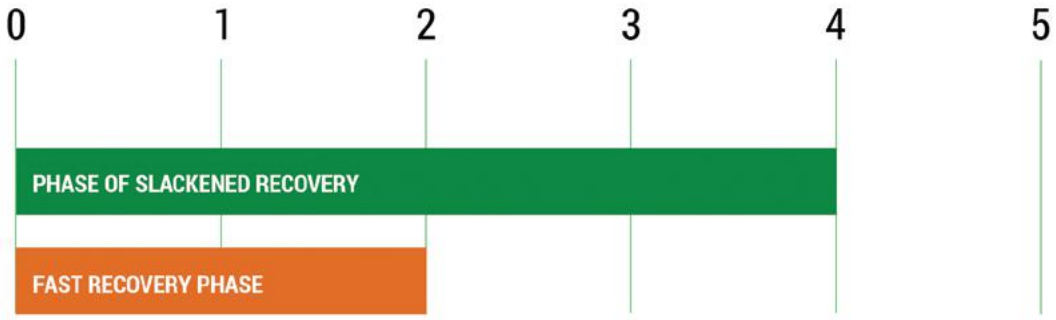
CATABOLIC HORMONES SECRETION

4 RAISED LEVEL MARKS

ANABOLIC HORMONES SECRETION

4 RAISED LEVEL MARKS

QUANTITY OF RECOVERY PHASE ACTING



FAST RECOVERY PHASE

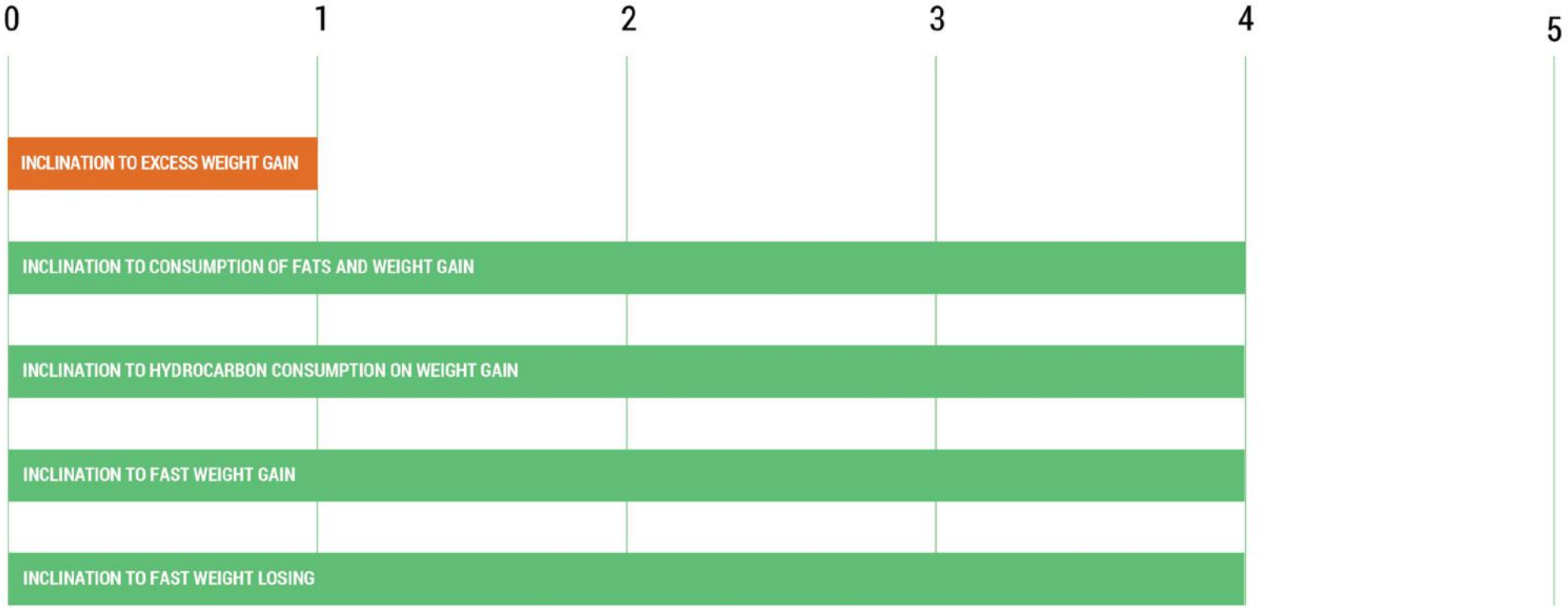
2 LOWED LEVEL MARKS

PHASE OF SLACKENED RECOVERY

4 RAISED LEVEL MARKS

PROGRAMME
OF PROFESSIONAL INDIVIDUALIZATION

INCLINATION TO PUTTING ON WEIGHT



INCLINATION TO EXCESS WEIGHT GAIN
3 MEDIUM LEVEL MARKS

INCLINATION TO CONSUMPTION OF FATS AND WEIGHT GAIN
4 RAISED LEVEL MARKS

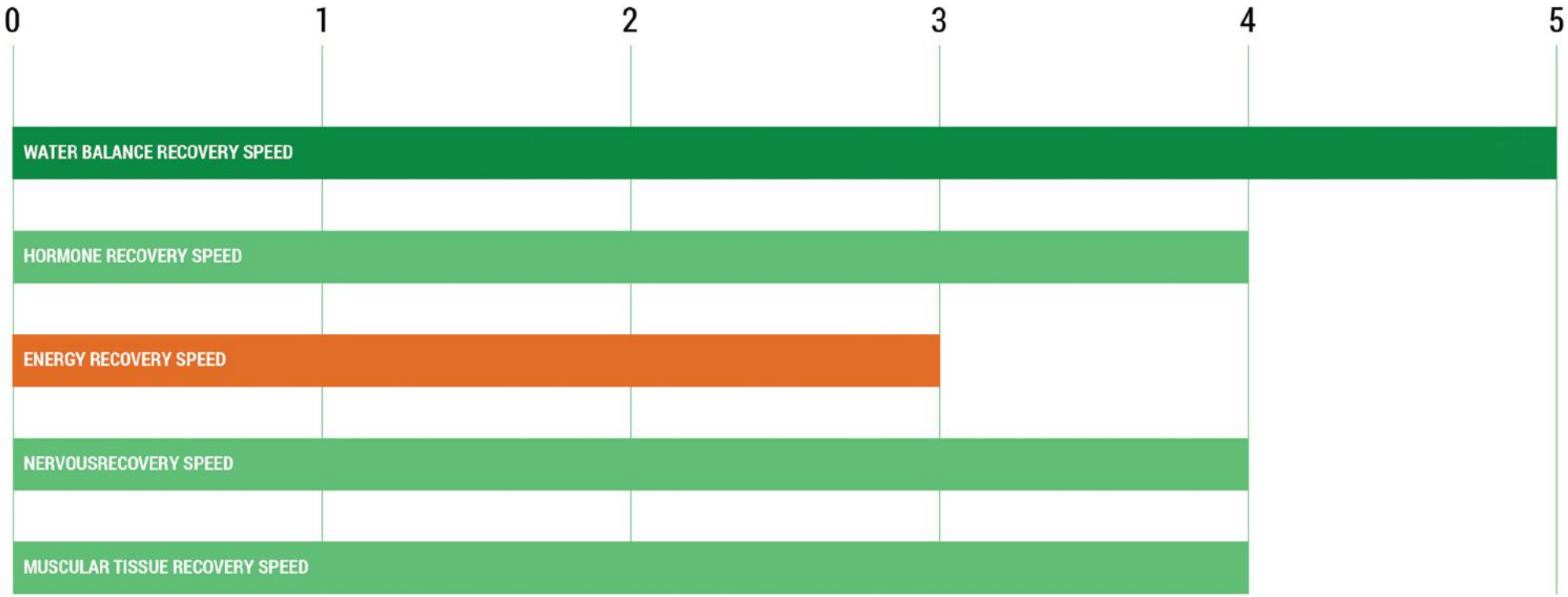
INCLINATION TO HYDROCARBON CONSUMPTION ON WEIGHT GAIN
4 RAISED LEVEL MARKS

INCLINATION TO FAST WEIGHT GAIN
4 RAISED LEVEL MARKS

INCLINATION TO FAST WEIGHT LOSING
4 RAISED LEVEL MARKS

PROGRAMME
OF PROFESSIONAL INDIVIDUALIZATION

ASSESSMENT OF INDIVIDUAL INDICES



SPEED OF WATER BALANCE RECOVERY

5 HIGH LEVEL MARKS

SPEED OF HORMONE RECOVERY

4 RAISED LEVEL MARKS

SPEED OF ENERGY RECOVERY

3 MEDIUM LEVEL MARKS

SPEED OF NERVOUS RECOVERY

4 RAISED LEVEL MARKS

SPEED OF MUSCULAR TISSUE RECOVERY

4 RAISED LEVEL MARKS

PROGRAMME
OF PROFESSIONAL INDIVIDUALIZATION

FACTORS NEGATIVELY INFLUENCING ON TRAINING PROCESS

Slow recovery	High fatigue	Increased traumatism

FUNDAMENTAL RECOMMENDATIONS ON TRAINING

Optimum time of a day and night	Sports nutrition	Practice time	Warm-up	Rest
Training at 6-10 o'clock in the morning	It's recommended to take considerable amount, accentuating on BCAA (branched-chain amino acids) and monohydrate creatine	Shortened workouts	Short and medium by duration	it is recommended to prolong rest time mostly

Cardio loads	Weight training	Stretching	Weight losing
It is recommended to decrease mostly	it is recommended to work with a small number of repetitions	Careful approach is necessary	It is going slowly

FUNDAMENTALS, POSITIVELY INFLUENCING ON TRAINING PROCESS

Good nervous-muscular connections

SPECIALIZATION WITHIN THE LIMITS OF THE SPORT

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RESEARCH DURATION

PSYCHODIAGNOSTICS: NOT LONGER THAN 1 HOUR FOR A GROUP OF 2-3 INDIVIDUALS
GENETICAL ANALYSIS: NOT LESS THAN 45 TRAINING DAYS

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