

**MICRONUTRIENTS FOR  
A HEALTHY LIFE**



Burgerstein Micronutrients

# Sports Medicine Seminar KHL

May 7th 2010

Leukerbad

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# **KHL-Team meets Burgerstein – the leading Swiss manufacturer of micronutrients**

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Burgerstein Micronutrients

# A Swiss Family Business since 1972

The name Burgerstein stands for:

- trustworthiness
- reliability
- purity



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# Success with Micronutrients

So-called “micronutrients” are the basis of this success. These substances are essential for human metabolism; but most of these substances cannot be synthesised in the body and must therefore be supplemented in times of increased need or deficiency.

Burgerstein products are the first choice when it comes to maintaining, improving or recovering good health in a natural way. They are product leaders in the field of preventive or therapeutic micronutrient compounds in Switzerland. Their large and steadily growing clientele is the best proof that Burgerstein products really are “naturally good”, just as the slogan says.

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# The balanced equation of micronutrients

At the right time, in the right place

The success of orthomolecular medicine is due to the optimal availability and distribution of micronutrients used in the body. Metabolism depends on micronutrients being in the right place, i.e. in the cells, in the right form, in the correct combination and in the right amount. In this way, maximum benefit is achieved and the body strengthened.

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# Effectiveness confirmed by research

To improve the effectiveness of micronutrients and orthomolecular medicine, we continually study new applications. We do this research together with medical clinics and the Swiss Federal Institute of Technology in Zurich. We also have an ongoing dialogue with leading scientists that provides Burgerstein with in-depth knowledge on the application and efficacy of micronutrients. Better scientific understanding is the basis for our product development.

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# Our principles

- No artificial additives
  - artificial colours, preservatives, flavors, etc.

The best product benefit is our ultimate goal – we never develop products whose benefit is not scientifically proven.

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# Sport: Top ranking with Burgerstein Products

Impressive proof of the importance and effectiveness of micronutrients is the widespread use of Burgerstein products by many top-ranking athletes. Our company supports these athletes by consulting with them personally and putting together the unique combination of compounds for their individual needs. These micronutrients are dosed and combined based on a biochemical nutrient profile that has been compiled in our laboratory. By doing this, we can provide individualized, tailor-made support for athletes.

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# Micronutrients in competitive sports

Example: Swiss Ski Federation

Generally nutrition and the supplementation of micronutrients is underestimated in competitive sports

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# Goals and benefit

- Maximal exploitation of performance during the training and the competition
- Distinctly lower risk for colds and flu
- Smaller susceptibility to injuries = continuity of training
- Improved and speedy recovery after injuries
- Physiological neuro-enhancement



# Micronutrients in competitive sports – our principles

- Based on lab results and medical history
- Customized and long term
- No short term high dose therapy
- Teamwork: close collaboration with the medical team and the nutrition specialist
- Products with the best active components = topmost bioavailability = co-factors at the right time in the right place

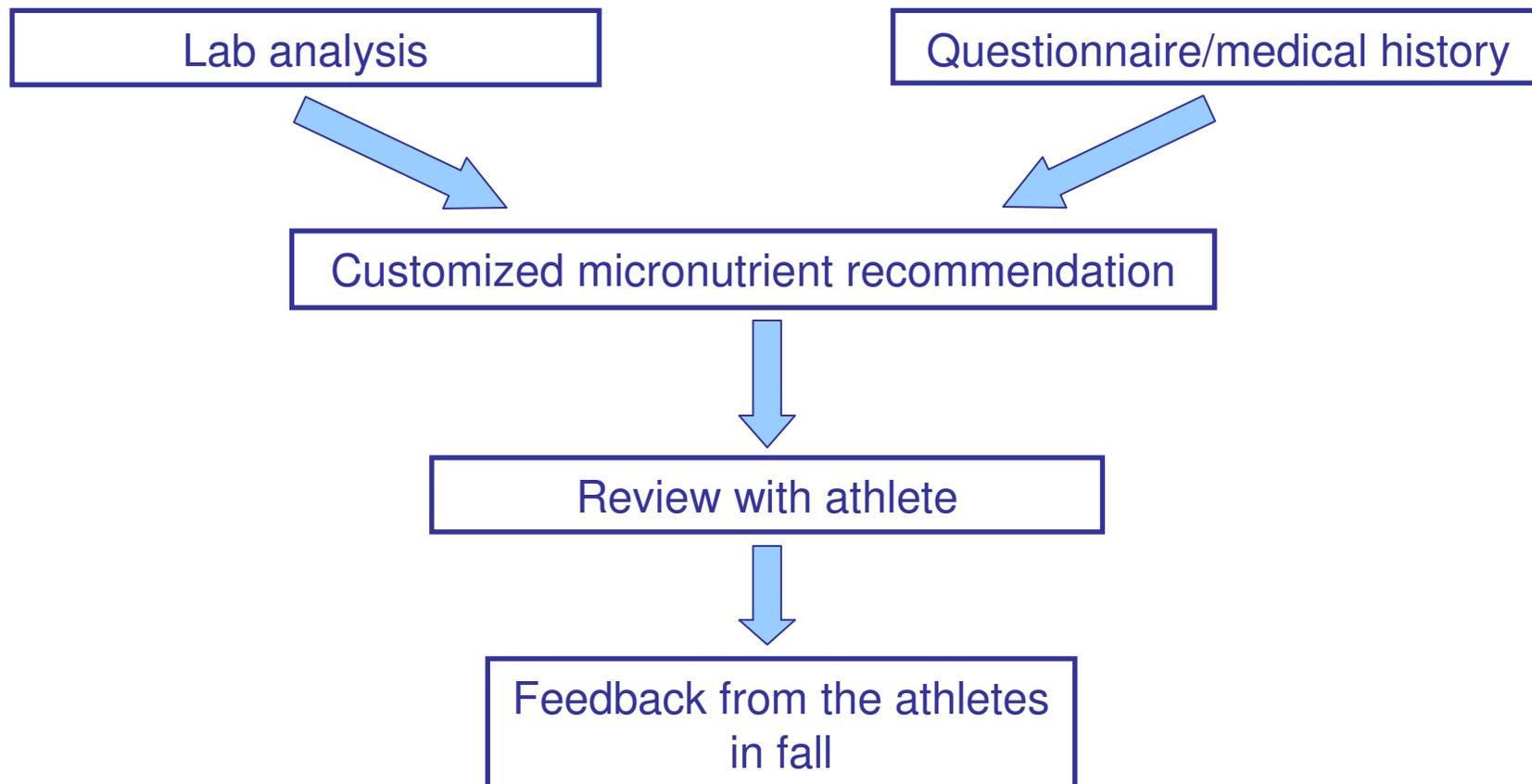


# The precise program

1. Fixed yearly planning – adapted to the schedule of the athlete
2. Lab analysis in the spring
3. Review of the lab results with individual micronutrient supplement recommendation with athletes (personally)
4. Full supplementation during training and competition phase
5. Feedback about the experience with the supplementation in the fall



# The counseling process







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# The consultation

Psychologically and in regards to the compliance it is very important to personally accompany the athlete and treat them as equal partners in the process.

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# Laboratory parameters and questionnaire

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# 1. Laboratory parameters

- Blood picture
- Ferritin
- Thyroid gland
- Magnesium, zinc, selenium (blood)
- Minerals, trace elements, heavy metals (hair)
- 25-(OH)-vitamin D3, vitamin B12 (blood)
- L-carnitine, coenzyme Q10 (blood)
- Oxidative stress

If needed: special tests (gastrointestinal problems, allergies, neurobalance etc.)



## 2. Questionnaire

To determine health problems, health issues and particular individual needs of the athletes, we conduct with the help of a questionnaire the past medical history.

### Immunsystem: Allergien, Infekte, Atemwege

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Allergien   
Chronische Bronchitis   
Infektanfälligkeit

Asthma   
Hepatitis

Leistungsasthma   
Herpeserkrankungen

Heuschnupfen   
HIV-Infektion

### Haut, Haare, Nägel, Schleimhaut, Zähne

Akne   
Nagelbrüchigkeit   
Weisse Flecken auf den Fingernägeln

Aphthen   
Schuppen

Ekzeme   
Fieberbläschen   
Mundwinkelrisse

Haarausfall   
Karies/ Zahnfleischwund

### Verdauung, Magen, Darm, Leber

Blähungen   
Lebererkrankungen   
Bauchschmerzen   
Nahrungsmittelunverträglichkeiten

Candida, Pilzkrankungen   
Reizdarm, Colon irritabile

chronischer Durchfall   
Sodbrennen

Verstopfung   
Zöliakie

wenn ja, welche? .....



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# Example 1: athlete, female, ski alpine, 24y

- lab results:
  - Magnesium, Zinc and Selenium (blood): low
- health problems:
  - sleeping disorder
  - hay fever
  - acne

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# Customized recommendation

**Anamnese/Fragebogen/Trend:**

- Tiefe Magnesium- und Zink-Werte im Blut
- Suboptimale Selen-Werte im Blut
- Heuschnupfen
- Einschlafstörungen
- Akne

**Basis-Supplementierung:**

**Burgerstein SPORT, 2 Tbl./Tag**

<b>Laborresultate:</b>	<b>Empfehlung:*</b>	<b>Kommentar:</b>
Tiefer Magnesium-Wert im Blut	<b>Burgerstein Magnesiumvital 2 Tbl./Tag</b>	- Einschlafstörungen - Heuschnupfen
Tiefer Zink-Wert im Blut	<b>Burgerstein Zinkvital 2x 1 Tbl./Tag</b>	- antiallergisch und immun- regulierend bei Heuschnupfen - verbessert Akne
Tiefer Selen-Wert im Blut	<b>Burgerstein Selenvital 2x 1 Tbl./ Tag</b>	- immunmodulierende Wirkung



## Example 2: athlete, male, ski alpine, 32y

- special personal problem:
  - inadequate alertness before and during competition
- lab results:
  - Blood picture, ferritin: good
  - Minerals, trace elements: good
  - Heavy metals: moderate burden (Pb, Cd)



# Example 2: athlete, male, ski alpine, 32y

- lab results:
  - special Neurobalance-profiles:
    - Cortisol (saliva): low
    - Serotonin (urine): low
    - Adrenalin (urine): low

# Supplementation

- Basic supply:
  - multivitamin-mineral product (Burgerstein Sport)
  
- Special supply for neurobalance / alertness:
  - Amino-Acid-Complex (Burgerstein Aminovital)
  - Vitamin B-Complex (Burgerstein Vitamin B-Komplex)



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# Results / performance

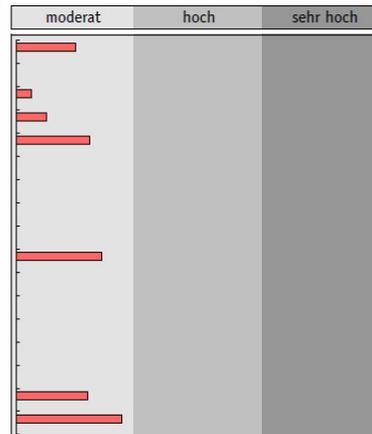
- Increased alertness and fitness
- Olympic Gold medal winner Vancouver  
2010

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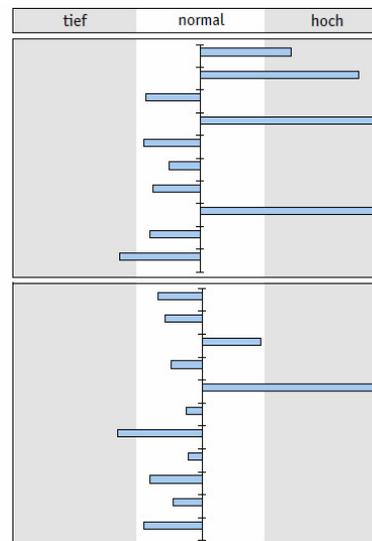


# HMA

Toxische Elemente	Referenzbereich	Messwert	
Silber	0 - 1.2	0.59	
Cadmium	0 - 0.12	< 0.02	
Blei	0 - 3.3	0.41	
Aluminium	0 - 12	3.0	
Quecksilber	0 - 1.0	0.61	
Arsen	0 - 0.2	< 0.11	
Beryllium	0 - 0.1	< 0.002	
Gold	0 - 0.3	< 0.05	
Platin	0 - 0.2	< 0.08	
Zinn	0 - 1.2	0.85	
Uran	0 - 0.2	< 0.13	
Antimon	0 - 0.2	< 0.10	
Palladium	0 - 0.12	< 0.07	
Thallium	0 - 0.2	< 0.13	
Bismuth	0 - 0.5	< 0.09	
Titan	0 - 6.0	3.55	
Zirkonium	0 - 0.5	0.44	



Mineralstoffe/Spurenelemente	Referenzbereich	Messwert	
Calcium	300 - 1800	2180	
Magnesium	20 - 100	164.7	
Phosphor	115 - 180	118	
Zink	145 - 220	350	
Chrom	0.04 - 0.3	0.05	
Mangan	0.07 - 0.4	0.15	
Molybdän	0.02 - 0.2	0.04	
Kupfer	10 - 27	66.5	
Eisen	6 - 14	6.7	
Selen	0.6 - 1.6	0.50	
Natrium	2 - 40	7.2	
Kalium	1 - 20	4.7	
Silicium	7 - 55	54.5	
Kobalt	0.02 - 0.3	0.09	
Strontium	0.7 - 7.0	25.9	
Barium	0.3 - 3.0	1.31	
Vanadium	0.005 - 0.1	< 0.005	
Nickel	0.05 - 0.8	0.34	
Bor	0.30 - 3.5	0.52	
Germanium	0.05 - 0.4	< 0.14	
Lithium	0.01 - 0.2	< 0.01	





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# Some important products for competitive sports

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# Burgerstein Sport

- complete primary product for athletes
- the most important micronutrients in one product
- developed with sports physicians and nutritionists
- well balanced for athletes
- dosage can be varied depending on training intensity and weight



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# Burgerstein Sport

- contains premium and well-balanced micronutrients
- chelated trace elements for better bioavailability
- high dose minerals: calcium (240 mg / tbl.) and magnesium (90 mg / tbl.) in an ideal ratio
- natural vitamin E from selected plant oils (with alpha-, beta-, gamma- and delta-tocopherol), natural carotinoids from sea plants, the active form of vitamin B6 (Pyridoxal-5-phosphat)
- antioxidants: vitamin C, vitamin E, selenium, zinc, manganese
- berry-extract with high ORAC

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# Minerals: Calcium, Magnesium

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# Burgerstein Dolomit plus

- calcium, magnesium and vitamin D3
- organic chelated minerals for best bioavailability
- no absorbable, exogenous additives
- no effervescent tablets
- the ideal supplement for healthy bones and muscles



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# Burgerstein Magnesiumvital

- most important for the detension of muscular cramps
- contains 150 mg of highly bioavailable Magnesium aspartate per tablet
- enables flexible, individual dosage
- no laxative effects



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# Build-up supplements

Burgerstein Protein plus

- Rehabilitation after injuries / wound healing

Burgerstein Omega-3 DHA

- Neuroenhancement for the competition



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# Product for the special needs

Overall over 70 products covering most:

- vitamins
- trace elements and minerals
- fatty acids
- amino acids

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# A product range of over 70 supplements



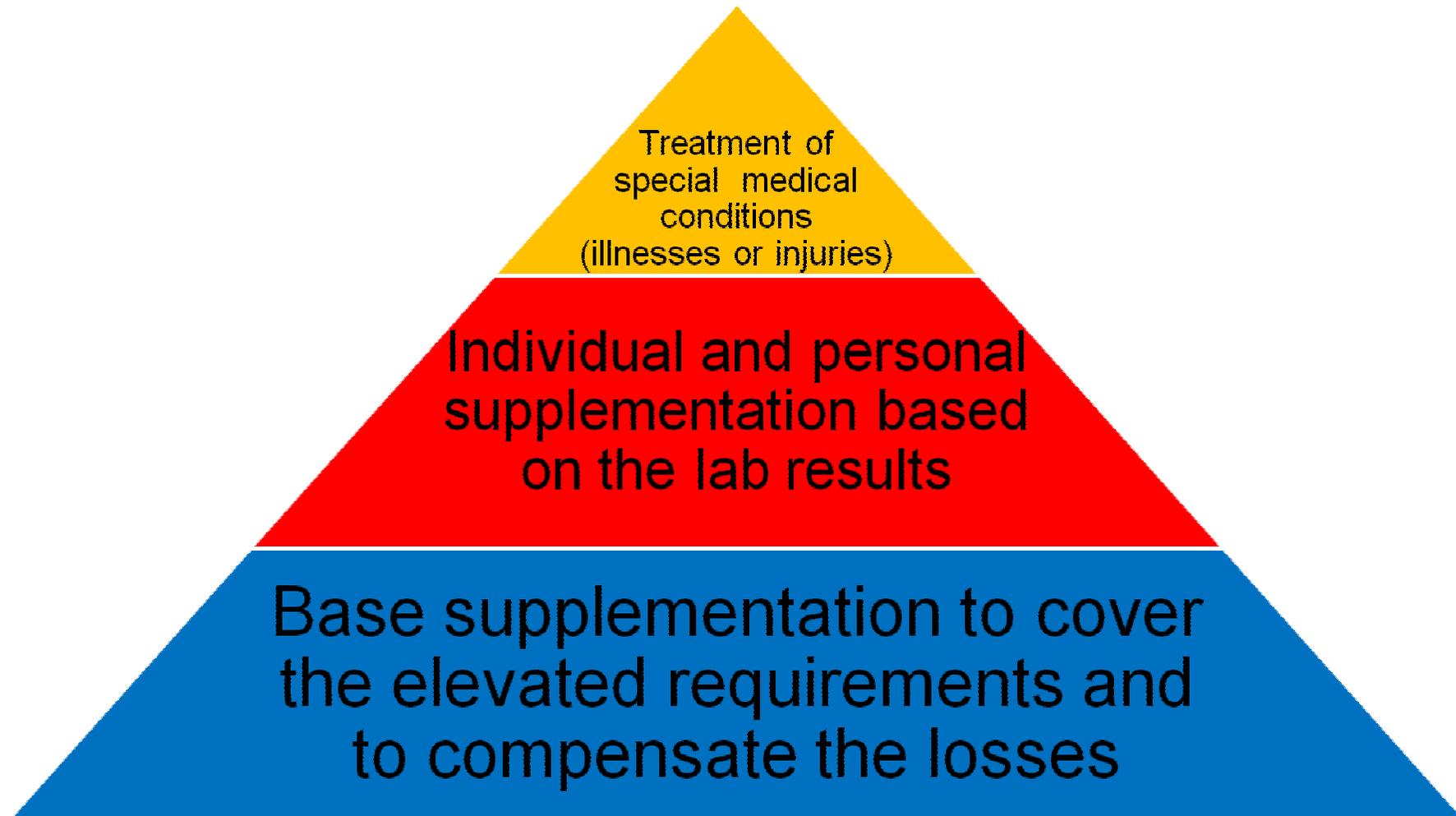
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# Supplementation strategy



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# Supplementation procedure in competitive sports

**Solely for the medical use.**

## Supplementation procedure for competitive sports: Swiss Ski, Swiss Triathlon, Vancouver 2010

### Base Supplementation

<b>Burgerstein Sport (90 mg Magnesium / 1 Tbl.)</b>	
females:	low till medium strain activities: <b>2x 1 tablet</b> (morning/night)
	high strain activities and on hot or cold days aswell as trainings in high altitude: <b>3x 1 tablet</b> (morning/midday/evening)
males:	low till medium strain activities: <b>2x 1 tablet</b> (morning/night)
	high strain activities and on hot or cold days aswell as trainings in high altitude: <b>2x 2 tablets</b> (morning/evening)

Dopig  
No illegal substances are used in these products  
To minimize the risk of contaminated products  
orders through the internet and from unknown  
producers should be refrained from.

### Additional special requirement supplementation

*With the following indications and additional supplementation of the maximum dose of 4 tablets daily of Burgerstein Sport is unproblematic. (exceptions are acute infections max. 2 tablets daily)*

<b>Immunesystem</b>	
<b>Burgerstein Vitamin C retard</b>	Prevention: <b>1-2 capsules</b> (morning) acute Infection: <b>2-4 capsules</b> (morning - till reduction of symptoms)
<b>Burgerstein Zinkvital</b>	Prevention: <b>1 tablet</b> (morning) acute Infection: <b>3x 2 tablets</b> (morning/midday/evening - till reduction of symptoms)

**RULE: During acute infections the daily dose of Burgerstein Sport can only be 2 tablets**

<b>Irondeficiency</b>	
<b>Burgerstein Eisen plus</b>	<b>2x 1 - 2 capsules</b> (mIDDay, or depending on lab results)

<b>Inflammation (time limitation, during acute inflammation)</b>	
<b>Burgerstein Vitamin E 400 I.E.</b>	1. week <b>3x 1 capsules</b> (morning/midday/evening), 2. week <b>2x 1 capsules</b> morning/evening) Chronic/stabalizing dose <b>1x 1 capsul</b> (mornings)
<b>Burgerstein Omega-3 EPA</b>	<b>3x 1 capsules</b> (morning/midday/evening)

<b>+ Recovery/improvement to endure physical stress and to recuperate faster</b>	
<b>Burgerstein L-Carnitin</b>	<b>2x 2 tablets</b> (morning/midday)

<b>Vitamin D3 (according to lab results)</b>	
<b>Burgerstein Vitamin D3</b>	<b>2x 3-4 capsules</b> (morning/night), target value: 75 nmol/l

*With the following indications a combination with a Multivitamin-Mineral supplement containing magnesium should be checked because of ist laxative effect*

<b>Rehabilitation/healing/improved muscle strenght</b>	
<b>Burgerstein Protein plus</b> (150 mg Mg / 3 TBSp)	<b>1x 3 Tbl. Spoon</b> (morning/midday or within 1 hour after a weight or endurance training)

<b>Cramps (muscle, menstruation) and stress prophylaxis</b>	
<b>Magnesiumvital</b> (300 mg Mg / 2 Tbl.)	Cramps: <b>2 x 1 tablet</b> Stress prophylaxis: <b>1 x 2 tablets</b> (night)

<b>Bone metabolism</b>	
<b>Dolomit plus</b> (240 mg Mg / 4 Tbl.)	<b>2x 2 tablets</b>



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# Top ranking with Burgerstein Products



SWISS TRIATHLON  
OFFICIAL PARTNER



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# Burgerstein a dedicated partner

- products of highest quality
- scientifically based know-how in prevention and therapy with micronutrients
- expert monitoring of sport organizations and athletes
- athletes with top rankings
- micronutrients with passion

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# A dedicated Team

The skills and expertise behind the name Burgerstein are its people. For our team, good health is not just a job, but a vocation. People working at Burgerstein often stay with the company for decades.





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**We are highly motivated  
to accompany KHL-organization  
and the athletes to top  
performances**

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