Preparations

Medicinal products and food supplements

Version April 2019

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selenase®

Medicinal Product

selenase® 50 peroral

Active substance
Sodium selenite pentahydrate
50 µg selenium in 1 ml oral solution

Composition
1 drinking ampoule of 1 ml contains as active substance 50 µg pure selenium as sodium selenite pentahydrate in 0.9% aqueous NaCl solution.
Excipients: sodium chloride, hydrochloric acid 10 %, water for injections.

Indications and pharmaceutical form
Proven selenium deficiency that cannot be corrected via diet. Selenium deficiency may occur in maldigestion and malabsorption conditions as well as a result of malnutrition and deficient nutrition.

Oral solution

Posology
50 µg selenium daily (corresponding to 1 drinking ampoule selenase® 50 peroral).

Contraindications
Hypersensitivity to the active substance sodium selenite pentahydrate or to any of the other excipients.
Selenium intoxications.
For further information, see "Summary of product characteristics".

Undesirable effects
when used as advised: unknown to date.

Interactions
selenase® 50 peroral must not be mixed with reducing agents such as vitamin C, as a precipitation of elemental selenium cannot be ruled out. Elementary selenium is insoluble in an aqueous medium and is not bioavailable. However, selenase® 50 peroral and vitamin C can be administered separately at intervals of at least 1 hour.

selenase® 50 peroral contains no yeast and is gluten-, lactose- and gelatin-free. Suitable for vegetarians and vegans.

OTC

selenase® 50 peroral

50 drinking ampoules of 1 ml solution (N2)
PZN 01240315

Ordering telephone number:
+49 (0)711 57532 – 404 / – 00

Fax number:
+49 (0)711 57532 – 301

E-mail:
Auftragsannahme@biosyn.de

selenase® 50 AP

OTC

selenase® 50 AP

20 tablets (N1)
PZN 04445609

50 tablets (N2)
PZN 04445615

100 tablets (N3)
PZN 04445621

Active substance
Sodium selenite pentahydrate
50 µg selenium per tablet

Composition
1 tablet contains 0.167 mg sodium selenite pentahydrate (equivalent to 50 µg selenium).

Excipients: gelatin, magnesium stearate (Ph. Eur.), maize starch, sucrose, talc.

Indications and pharmaceutical form
Proven selenium deficiency that cannot be corrected via diet. Selenium deficiency may occur in maldigestion and malabsorption conditions as well as a result of malnutrition and deficient nutrition.

Tablets

Posology
Unless otherwise prescribed, the daily dose is 1 tablet (equivalent to 50 µg selenium). selenase® 50 AP should be taken with a little liquid, preferably a glass of water.

Contraindications
Hypersensitivity to sodium selenite pentahydrate or to any of the other excipients.
Selenium intoxications.

Undesirable effects
when used as advised: unknown to date.

Interactions
The sodium selenite pentahydrate in selenase® 50 AP can reduce the effectiveness of minerals or trace elements taken at the same time. Avoid concomitant intake of vitamin C. However, separate intake of selenase® 50 AP and e.g. vitamin C at intervals of at least 1 hour is possible.

Contains sucrose.

selenase® 50 AP contains no yeast and is gluten- and lactose-free.

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Auftragsannahme@biosyn.de

selenase® 50 Mikrogramm Injektionslösung

Active substance
Sodium selenite pentahydrate
50 µg selenium per ml

Composition
1 ml solution for injection contains 0.167 mg sodium selenite pentahydrate as active substannce corresponding to 50 µg selenium in 0.9% NaCl solution.

Excipients: sodium chloride, hydrochloric acid, water for injections.

Indications and pharmaceutical form
Proven selenium deficiency that cannot be corrected via diet. Selenium deficiency may occur in maldigestion and malabsorption conditions as well as a result of malnutrition and deficient nutrition (e.g. total parenteral nutrition).

Solution for injection

Posology
50 µg selenium daily (corresponding to 1 ampoule selenase® 50 Mikrogramm Injektionslösung).
selenase® 50 microgram solution for injection is injected intramuscularly or intravenously. Selenium determination in whole blood or serum for therapy monitoring is recommended.
Parenteral administration should be performed as long as there is a proven selenium deficiency and sufficient intake of selenium with food is not possible.

Contraindications
Hypersensitivity to sodium selenite pentahydrate or to any of the other excipients.
Selenium intoxications.

Undesirable effects
when used as advised: unknown to date.

Interactions
When administered parenterally as an additive to infusion solutions, it must be ensured that no unspecific precipitates occur. Care must be taken that the pH value does not drop below 7.0 and that no mixture with reducing agents, e.g. vitamin C, takes place, as a precipitation of elemental selenium cannot be ruled out. Elementary selenium is insoluble in aqueous medium and is not bioavailable. selenase® is miscible with all common infusion solutions (electrolyte and carbohydrate solutions).

Contains sodium compounds.

selenase® 50 microgram solution for injection contains no yeast and is gluten-, lactose- and gelatin-free. Suitable for vegetarians and vegans.

OTC

selenase® 50 Mikrogramm Injektionslösung

10 ampoules of 1 ml solution for injection (N2)
PZN 13865799

50 ampoules of 1 ml solution for injection
PZN 13335771

Ordering telephone number:
+49 (0)711 57532 – 404 / – 00

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E-mail:
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selenase® 100 µg peroral, drinking solutions

Prescription-only

Oral solution:

selenase® 100 µg peroral (100 µg)

20 drinking ampoules with 2 ml solution (N1)
PZN 00493942

60 drinking ampoules with 2 ml solution (N2)
PZN 00593684

100 drinking ampoules with 2 ml solution (N3)
PZN 09263474

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Active substance
Sodium selenite pentahydrate
50 µg selenium per ml

Composition
1 drinking ampoule of 2 ml contains: 0.333 mg sodium selenite pentahydrate, corresponding to 100 µg (micrograms) selenium.

Excipients: sodium chloride, water for injections, hydrochloric acid.

Indications and pharmaceutical form
Proven selenium deficiency that cannot be corrected via diet. Selenium deficiency may occur in maldigestion and malabsorption conditions as well as a result of malnutrition and deficient nutrition.

Oral solution

Posology
100 µg selenium daily, short-term up to 300 µg selenium daily (corresponding to 1 drinking ampoule or up to 3 drinking ampoules selenase® 100 µg peroral).
The treatment should be carried out until normalization of selenium status (selenium in plasma 80 – 120 µg/l, in whole blood 100 – 140 µg/l. A regular determination of the selenium level at appropriate intervals is recommended.

Contraindications
Hypersensitivity to sodium selenite pentahydrate or to any of the other excipients.
Selenium intoxications.

Undesirable effects
when used as advised: unknown to date.

Interactions
selenase® peroral must not be mixed with reducing agents such as vitamin C, as a precipitation of elemental selenium cannot be ruled out.
selenase® peroral and vitamin C can be administered seperately at intervals of at least 1 hour.

Contains sodium compounds.

selenase® 100 µg peroral contains no yeast and is gluten-, lactose- and gelatin-free. Suitable for vegetarians and vegans.

selenase® T peroral, drinking solution

Active substance
Sodium selenite pentahydrate
50 µg selenium per ml

Composition
selenase® T peroral:
1 ml solution contains: 0.167 mg sodium selenite pentahydrate, corresponding to 50 µg (micrograms) selenium.

Excipients: sodium chloride, water for injections, hydrochloric acid.

Indications and pharmaceutical form
Proven selenium deficiency that cannot be corrected via diet. Selenium deficiency may occur in maldigestion and malabsorption conditions as well as a result of malnutrition and deficient nutrition.

Oral solution

Posology
100 µg selenium daily, short-term up to 300 µg selenium daily (corresponding to 2 ml or up to 6 ml selenase® T peroral).
The treatment should be carried out until normalization of selenium status (selenium in plasma 80 – 120 µg/l, in whole blood 100 – 140 µg/l). A regular determination of the selenium level at appropriate intervals is recommended.

Contraindications
Hypersensitivity to sodium selenite pentahydrate or to any of the other excipients.
Selenium intoxications.

Undesirable effects
when used as advised: unknown to date.

Interactions
selenase® peroral must not be mixed with reducing agents such as vitamin C, as a precipitation of elemental selenium cannot be ruled out.
selenase® peroral and vitamin C can be administered separately at intervals of at least 1 hour.

Contains sodium compounds.

selenase® T peroral contains no yeast and is gluten-, lactose- and gelatin-free. Suitable for vegetarians and vegans.

Prescription-only

Oral solution:

selenase® T peroral (500 µg)

10 drinking bottles of 10 ml solution
PZN 00593690

Ordering telephone number:
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Fax number:
+49 (0)711 57532 – 301

E-mail:
Auftragsannahme@biosyn.de

selenase® 100 µg pro injectione, solution for injection

Prescription-only

selenase® 100 µg pro injectione

10 ampoules of 2 ml solution for injection (N2)
PZN 00593709

50 ampoules of 2 ml solution for injection
PZN 00593721

Ordering telephone number:
+49 (0)711 57532 – 404 / – 00

Fax number:
+49 (0)711 57532 – 301

E-mail:
Auftragsannahme@biosyn.de

Active substance
Sodium selenite pentahydrate
50 µg selenium per ml

Composition
1 ampoule of 2 ml solution for injections contains: 0.333 mg sodium selenite pentahydrate, corresponding to 100 µg (micrograms) selenium.

Excipients: Sodium chloride, water for injections, hydrochloric acid.

Indications and pharmaceutical form
Proven selenium deficiency that cannot be corrected via diet. Selenium deficiency may occur in maldigestion and malabsorption conditions as well as a result of malnutrition and deficient nutrition (e.g. total parenteral nutrition).

Solution for injection

Posology
100 µg selenium daily, short-term up to 300 µg selenium daily (corresponding to 1 ampoule or up to 3 ampoules selenase® 100 µg pro injectione).
The treatment should be carried out until normalization of selenium status (selenium in plasma 80 – 120 µg/l, in whole blood 100 – 140 µg/l). Regular determination of selenium levels at appropriate intervals is recommended.

Contraindications
Hypersensitivity to sodium selenite pentahydrate or to any of the other excipients.
Selenium intoxications.
For further information, see “Summary of product characteristics”.

Undesirable effects
General disorders and administration site conditions
Frequency not known (frequency cannot be estimated based on available data).
Pain may occur at the injection site after intramuscular administration.

Interactions
When administered parenterally as an additive to infusion solutions, it must be ensured that no unspecific precipitations occur. Care must be taken that the pH does not drop below 7.0 and that no mixture with reducing agents, e.g. vitamin C, is used, as the precipitation of elemental selenium cannot be ruled out. Elementary selenium is insoluble in aqueous medium and is not bioavailable.

Contains sodium compounds.

selenase® 100 µg pro injectione contains no yeast and is gluten-, lactose- and gelatin-free. Suitable for vegetarians and vegans.

selenase® T pro injectione, solution for injection

Active substance
Sodium selenite pentahydrate
50 µg selenium per ml

Composition
1 injection vial with 10 ml solution for injection contains: 1.67 mg sodium selenite pentahydrate, corresponding to 500 µg (micrograms) selenium.
1 injection vial with 20 ml solution for injection contains: 3.33 mg sodium selenite pentahydrate, corresponding to 1000 µg (micrograms) selenium.

Excipients: Sodium chloride, water for injections, hydrochloric acid.

Indications and pharmaceutical form
Proven selenium deficiency that cannot be corrected via diet. Selenium deficiency may occur in maldigestion and malabsorption conditions as well as a result of malnutrition and deficient nutrition (e.g. total parenteral nutrition).

Solution for injection

Posology
100 µg selenium daily, short-term up to 300 µg selenium daily (corresponding to 2 ml or to 6 ml selenase® T pro injectione).
The treatment should be carried out until normalization of selenium status (selenium in plasma 80 – 120 µg/l, in whole blood 100 – 140 µg/l). Regular determination of selenium levels at appropriate intervals is recommended.

For the treatment of extreme seleinum deficiency, such as SIRS/sepsis, normalization of selenium status can only be achieved by administration of higher doses of selenium (up to 1,000 µg/day corresponding to 1 vial selenase® T pro injectione, 20 ml, temporarily up to 2,000 µg/day corresponding to 2 vials selenase® T pro injectione, 20 ml). A close monitoring of the selenium levels is recommended. For values above normal, the dose should be reduced. The administration of higher doses should be limited to 14 days. The lower toxicity limit is 900 µg/l plasma or 1,000 µg/l in whole blood.

Contraindications
Hypersensitivity to sodium selenite pentahydrate or to any of the other excipients.
Selenium intoxications.

Undesirable effects
General disorders and administration site conditions
Frequency not known (frequency cannot be estimated based on available data).
Pain may occur at the injection site after intramuscular administration.

Interactions
When administered parenterally as an additive to infusion solutions, it must be ensured that no unspecific precipitations occur. Care must be taken that the pH does not drop below 7.0 and that no mixture with reducing agents, e.g. vitamin C, is used, as the precipitation of elemental selenium cannot be ruled out. Elementary selenium is insoluble in aqueous medium and is not bioavailable.

Contains sodium compounds.

selenase® T pro injectione contains no yeast and is gluten-, lactose- and gelatin-free. Suitable for vegetarians and vegans.

Prescription-only

Solution for injection:

selenase® T pro injectione (500 µg)

2 vials of 10 ml solution for injection
PZN 00593738

10 vials of 10 ml solution for injection (N2)
PZN 00593744

selenase® T pro injectione (1000 µg)

10 vials of 20 ml solution for injection (N2)
PZN 02877983

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selenase® RP Tabletten

Prescription-only

selenase® RP Tabletten

50 tablets (N2)
PZN 00794098

100 tablets (N3)
PZN 00794106

Active substance
Sodium selenite pentahydrate
79 µg selenium per tablet

Composition
1 tablet contains 263 µg sodium selenite pentahydrate (corresponding to 1 µmol = 79 µg selenium).

Excipients: microcrystalline cellulose, sorbitol (Ph. Eur.), povidone K25, magnesium stearate (Ph. Eur.), stearic palmitic acid.

Indications and pharmaceutical form
Proven selenium deficiency that cannot be corrected via diet. Selenium deficiency may occur in maldigestion and malabsorption conditions as well as a result of malnutrition and deficient nutrition.

Tablets

Posology
1 tablet daily. The dose can be increased to 4 tablets daily for short-term (approx. 300 µg selenium). selenase® RP Tabletten should be taken with a little liquid, preferably a glass of water.

Contraindications
Hypersensitivity to the active ingredient sodium selenite pentahydrate or to any of the other excipients.
Selenium intoxications.

Undesirable effects
when used as advised: unknown to date

Interactions
The sodium selenite pentahydrate in selenase® RP tablets can reduce the effectiveness of minerals or trace elements taken at the same time. Concomitant intake with vitamin C should be avoided.

Contains sorbitol.

selenase® RP Tabletten contain no yeast and are gluten-, lactose- and gelatin-free. Suitable for vegetarians and vegans.

Ordering telephone number:
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selenase® 300 RP

Active substance
Sodium selenite pentahydrate
300 µg selenium per tablet

Composition
1 tablet contains 0.999 mg sodium selenite pentahydrate (corresponding to 300 µg selenium).
Excipients: magnesium stearate (Ph. Eur.), maize starch, povidone K 25, sucrose, talc.

Indications and pharmaceutical form
Proven selenium deficiency that cannot be corrected via diet. Selenium deficiency may occur in maldigestion and malabsorption conditions as well as a result of malnutrition and deficient nutrition.

Tablets

Posology
Unless otherwise prescribed, the daily dose is 1 tablet (corresponding to 300 µg selenium). selenase® 300 RP should be taken with a little liquid, preferably a glass of water.

Contraindications
Hypersensitivity to the active ingredient sodium selenite pentahydrate or to any of the other excipients.
Selenium intoxications.

Undesirable effects
when used as advised: unknown to date.

Interactions
The sodium selenite pentahydrate in selenase® 300 RP can reduce the effectiveness of minerals or trace elements taken at the same time. Concomitant intake with vitamin C should be avoided.
However, selenase® 300 RP and e.g. vitamin C can be administered separately at intervals of at least 1 hour.

Contains sucrose.

selenase® 300 RP contains no yeast and is gluten-, lactose- and gelatin-free. Suitable for vegetarians and vegans.

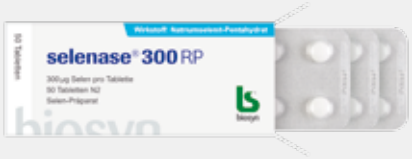
Prescription-only

selenase® 300 RP

20 tablets (N1)
PZN 03892298

50 tablets (N2)
PZN 03892306

100 tablets (N3)
PZN 03892329



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Suboptimal selenium supply in Europe

Possible effects of a selenium deficit

Hair
- Hair loss

Brain
- Tiredness
- Poor performance

Thyroid gland
- Limited function of the thyroid gland
- Hypothyroidism

Heart
- Increased probability of cardiovascular disease

Organism
- Restricted function of the immune system
- Increased likelihood of cancer

Liver
- Liver dysfunctions

Testis
- Infertility

Muscles
- Loss of muscular strength

Bones
- Arthritis

Nails
- White coloration of the nails

Huang Z, Rose AH, Hoffmann PR. Antioxid Redox Signal. 2012 Apr 1;16(7):705-43. doi: 10.1089/ars.2011.4145 The role of selenium in inflammation and immunity: from molecular mechanisms to therapeutic opportunities.

Gärtner R, Gasnier BC, Dietrich JW, Krebs B, Angstwurm MW. J Clin Endocrinol Metab. 2002 Apr;87(4):1687-91. Selenium supplementation in patients with autoimmune thyroiditis decreases thyroid peroxidase antibodies concentrations.

Rayman MP. Lancet. 2012 Mar 31;379(9822):1256-68. doi: 10.1016/S0140-6736(11)61452-9. Selenium and human health.

Bundesgesundheitsblatt – Gesundheitsforschung – Gesundheitsschutz 2006 • 49:88–102 DOI 10.1007/s00103-005-1185-4 http://edoc.rki.de/documents/rki_ab/re67flHRghoUo/PDF/2569lt94O6HF.pdf

Reference range of selenium in Germany

Figures from a major European trial in 2015 have confirmed the sub-optimal selenium supply in Europe.[1] Moreover, there are significant differences between Central, Southern and Northern Europe (77.4 vs. 79.8 vs. 87.2; $p < 0.001$). The average selenium concentration in serum in Europe is 85.6 µg/l, just within the reference range starting at 80 µg/l selenium in serum (Table 1). In Germany, the mean value of 74.3 µg/l selenium in serum for men and 73.2 µg/l selenium in serum for women does not achieve the reference range.[1]

The recommended daily intake of selenium by the German Society for Nutrition (DGE) is 70 µg for men and 60 µg for women depending on weight; in fact, the average daily intake of selenium is 30 ± 16 µg for women and 42 ± 26 µg for men[2].

[1] Hughes DJ, et al. Int J Cancer. 2015 Mar 1; 136(5):1149-61. doi: 10.1002/ijc.29071. Selenium status is associated with colorectal cancer risk in the European prospective investigation of cancer and nutrition cohort.

[2] Anke M, et al. (1999) Trace element intake and balance in adults in Central Europe. Trace Elements in Man and Animals 10, Proceedings of the International Symposium on Trace Ele-ments in Man and Animals, 10th, Evian, France. 2000, 209-14.

[3] selenase® Summary of product characteristics

Reference range of selenium in Germany

		Selenium deficiency[1)]	Reference range[2)]
Whole blood	µg/l	< 100	100 - 140
	µmol/l	< 1.3	1.3 - 1.8
Serum	µg/l	< 80	80 - 120
	µmol/l	< 1.0	1.0 - 1.5

1) Prepared and calculated based on Yang G 1989
2) Technical information e.g. selenase® peroral, selenase® RP.

Table 1

Selenium status measurement at biosyn

© skynesher/iStockphoto

The required material (special blood collection system including cannula and protective sleeve, analysis request and shipping bag) will be sent to you free of charge on request.

Together with the measured values, you will receive an assessment of the results and a comparison with the reference values. Furthermore, recommendations are given for concentrations outside the reference range.

Selenium test	€ 19.90

For more information, see:
www.biosyn.de/service/labor/

biosyn Arzneimittel GmbH, Schorndorfer Str. 32, 70734 Fellbach/Germany
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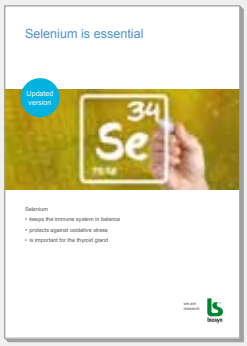
The information provided must not be understood as an invitation to a specific treatment or non-treatment or to self-treatment or self-discovery of a possible illness or similar. Information and advice do not replace examination and treatment by a physician or a consultation in a pharmacy.

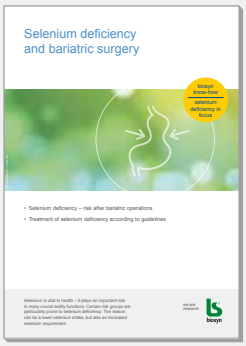
Information from biosyn Arzneimittel

We would be pleased to provide you with comprehensive information on the following topics, among others:

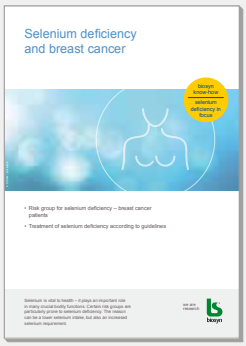
Information for healthcare professionals



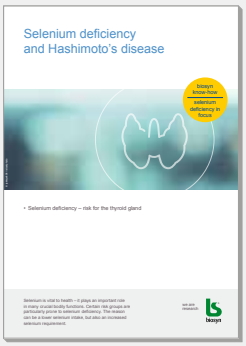
"Selenium is essential", folder for healthcare professionals. Format DIN A4 48 pages



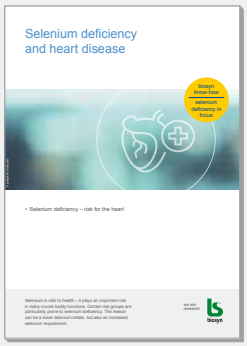
Selenium deficiency and bariatric surgery, folder for healthcare professionals. Format: DIN A4



Selenium deficiency and breast cancer, folder for healthcare professionals. Format: DIN A4

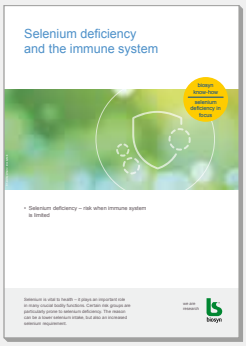


Selenium deficiency and Hashimoto's disease, folder for healthcare professionals. Format: DIN A4



Selenium deficiency and heart disease, folder for healthcare professionals. Format: DIN A4

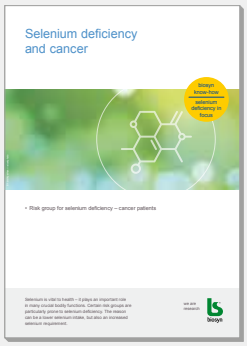
Selenium deficiency and heart surgery, folder for healthcare professionals. Format: DIN A4



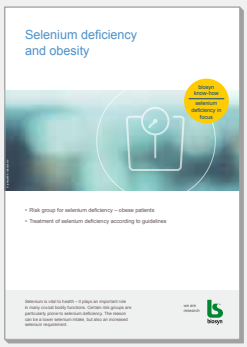
Selenium deficiency and the immune system, folder for healthcare professionals. Format: DIN A4

Selenium deficiency and vaccinations, folder for healthcare professionals. Format: DIN A4

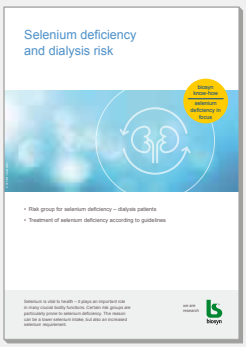
Selenium deficiency and intensive care patients, folder for healthcare professionals. Format: DIN A4



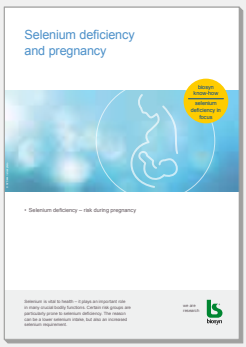
Selenium deficiency and cancer, folder for healthcare professionals. Format: DIN A4



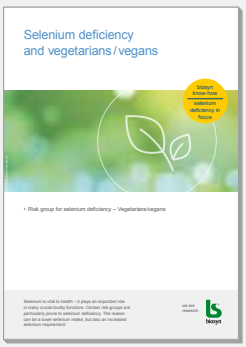
Selenium deficiency and obesity, folder for healthcare professionals. Format: DIN A4



Selenium deficiency and dialysis risk, folder for healthcare professionals. Format: DIN A4



Selenium deficiency and pregnancy, folder for healthcare professionals. Format: DIN A4



Selenium deficiency and vegetarians / vegans, folder for healthcare professionals. Format: DIN A4

Selenium deficiency and burns, folder for healthcare professionals. Format: DIN A4

Order by e-mail: information@biosyn.de (please specify desired materials).

Trace element with zinc

medicinal product

When is there a risk of zinc deficiency?

Zinc deficiency

Depending on the personal life situation, the zinc requirement or the absorptive capacity of the body can change. Athletes, pregnant women and breastfeeding women have a higher requirement. [5] This also applies to people with chronic bowel disease, diabetes mellitus and rheumatism (due to medicines taken during therapy).[5] While requiring more zinc, older people can often take up zinc less easily.

Possible symptoms of zinc deficiency

A zinc deficiency has to be diagnosed by blood analysis. However, there are a series of symptoms which, apart from the increased susceptibility for infections, may indicate a zinc deficiency: [4, 5]

- Tiredness and lack of energy
- Reduced physical capacity
- Enduring fatigue states
- Depressive mood
- Brittle nails
- Dry, scaly skin
- Wound healing disorders

Zinc deficiency can also lead to a lack of gonad function, growth disorders and anemia.

[4] Prasad AS. Adv Nutr. 2013 Mar 1; 4(2): 176-90. doi: 10.3945/an.112.003210. Discovery of human zinc deficiency: its impact on human health and disease.

[5] Classen H-G, Gröber U, Löw D, Schmidt J, Stracke H. Monatsschr. Pharm. 2011 34: 87-95. Zinc Deficiency. Symptoms, Causes, Diagnosis and Therapy.

Possible symptoms of zinc deficiency

Hair
- Thinning hair
- Hair loss

Brain
- Lack of drive
- Concentration disorders
- Learning disability
- Depressions

Sense organs
- Impairment of sensory perception, e.g. night blindness, taste and smell disorders

Lungs
- Increased susceptibility to infections

Organism
- Weight loss

Sexual organs
- Disturbed sexual development
- Pregnancy complications

Bones
- Growth delays

Skin
- Inflammatory skin reactions
- Skin changes
- Delayed wound healing

Nails
- Brittle, white-spotted nails

Prasad AS. Adv Nutr. 2013 Mar 1; 4(2): 176-90. doi: 10.3945/an.112.003210. Discovery of human zinc deficiency: its impact on human health and disease.

ZINKOTASE®

Active substance
Zincbis(hydrogen DL-aspartate)
25 mg zinc per film-coated tablet

Composition
1 film-coated tablet contains 128.97 mg zincbis(hydrogen DL-aspartate), corresponding to 25 mg zinc.
Excipients: sodium starch glycolate (type A) (Ph. Eur.), microcrystalline cellulose, cellulose powder, povidone K25, magnesium stearate (Ph. Eur.), poly[butyl methacrylate-co-(2-dimethylaminoethyl)methacrylate- co-methyl methacrylate] (1:2:1), refined castor oil, talcum, titanium dioxide.

Indications and pharmaceutical form
To treat zinc deficiencies that cannot be remedied via diet and during treatment with penicillamine.

Film-coated tablets

Posology
Adults should take one film-coated tablet, corresponding to 25 mg zinc, once a day.

Contraindications
Hypersensitivity to the active ingredient zincbis(hydrogen DL-aspartate) or to any of the other excipients.

Undesirable effects
when used as advised: unknown.

Interactions
- Impairment of resorption of tetracyclines and ofloxacin and other quinolones.
- Reduced absorption of zinc by foods with high phytin content or iron, copper or calcium salts.
- Impairment of the bioavailability of copper.
- Reduced absorption or increased excretion of zinc by chelating agents such as D-penicillamine, dimercaptopropanesulfonic acid (DMPS), edetinic acid (EDTA).

For further information, see “Summary of product characteristics”.

ZINKOTASE® contains no yeast and is gluten-, lactose- and gelatin-free. Suitable for vegetarians and vegans.

OTC

ZINKOTASE®

50 film-coated tablets
PZN 06983618

Ordering telephone number:
+49 (0)711 57532 – 404 / – 00

Fax number:
+49 (0)711 57532 – 301

E-mail:
Auftragsannahme@biosyn.de

Information from biosyn Arzneimittel

We would be pleased to provide you with comprehensive information on ZINKOTASE®:

Information for healthcare professionals

ZINKOTASE® – Zinc protects against colds, folder for healthcare professionals
Format: DIN A4
20 pages

Patient information

ZINKOTASE® – Zinc strengthens the immune system: Patient brochure
Format: DIN long
20 pages

Order by e-mail, also in larger quantities for you or your patients. Quantity: information@biosyn.de

Analgesics (opioids)

Medicinal product

MEPTID®

Active substance:
meptazinol hydrochloride.

Composition
1 ml of the solution for injection (1 ampoule) contains 115.6 mg meptazinol hydrochloride corresponding to 100 mg meptazinol. Meptazinol is m-(3-ethyl-hexahydro-1-methyl-1H-azepin-3-yl)phenol.
Excipients: glucose, water for injections.

Indications and pharmaceutical form
MEPTID® is indicated in moderate to severe pain of various causes.

Solution for injection

Posology
The dosage is determined by the physician. The usual dose is:
Adult
– i.v.: 50 mg to 100 mg meptazinol (= 0.5 ml to 1 ml MEPTID®) follow-up injection of the same dose every 2 to 4 hours if necessary.
– i.m.: 75 to 100 mg meptazinol (= 0.75 ml to 1 ml MEPTID®) follow-up injection of the same dose every 2 to 4 hours if necessary.

For pain relief in the first stage of birth 100 mg to 150 mg meptazinol (= 1 ml to 1.5 ml MEPTID®), up to 2 mg meptazinol per kg body weight, depending on the patient's weight.
Children
There is no experience with children (for further information, see “Summary of product characteristics”).

Contraindications
Hypersensitivity to active substance meptazinol or to any of the other excipients.

Undesirable effects
Very common: nausea, vomiting, euphoria, dysphoria. *Common:* tiredness, dizziness, sweating. *Uncommon:* stomach and intestinal disorders (abdominal pain, constipation or diarrhea), drowsiness, headaches, hallucinations. *Very rare:* respiratory depression, hypertensivity reactions (rash [exanthema], itching). *Unknown frequency:* change in blood pressure (both a decrease in blood pressure and a slight increase in blood pressure). In newborns: respiratory depression may occur if the mother has received MEPTID® during birth.

Interactions
When MEPTID® is used simultaneously with drugs that tend to suppress the central nervous system (sedatives, tranquilizers, neuroleptics, etc.), reciprocal increase in fatigue can result. Drugs that cause enzyme induction (e.g. prednisolone, diphenhydramine) may reduce the analgesic effect of MEPTID®.

Warnings
Contains glucose.

A short storage period of up to one month at room temperature (“Do not store above 25 °C.“) does not negatively affect the quality of the medicinal product. The storage instruction (“Store in fridge, 2 - 8°C”) for long term storage remains unchanged.

Prescription-only
Non-controlled substance

MEPTID®

10 ampoules of 1 ml solution for injection (N2)
PZN 05964300

50 ampoules of 1 ml solution for injection
PZN 05964317

Ordering telephone number:
+49 (0)711 57532 – 404 / – 00

Fax number:
+49 (0)711 57532 – 301

E-mail:
Auftragsannahme@biosyn.de

Information from biosyn Arzneimittel

We would be pleased to provide you with comprehensive information on the following topics, among others:

Information for healthcare professionals

MEPTID® and pain
For outpatient operations: folder for healthcare professionals
Format: DIN A4
64 pages

MEPTID® – rapid effect, strong pain therapy, dosage information for healthcare professionals.
Format: DIN A4
4 pages

MEPTID® and birth
MEPTID® helps with contractions: folder for healthcare professionals
Format: DIN A4
32 pages

MEPTID® alleviates labor pain. Dosage information for healthcare professionals.
Format: DIN A4
2 pages

Order by e-mail: information@biosyn.de (please specify desired materials).

Antidota / Biomodulators

Medicinal product

CALCIUMFOLINAT biosyn liquid

Active substance
Calcium folinate
10 mg folic acid per ml solution for injection

Composition
1 injection vial of 100 ml solution for injection contains 1080 mg calcium folinate, corresponding to 1000 mg folic acid.

Excipients: sodium hydroxide, hydrochloric acid, trometamol, water for injections.

Indications and pharmaceutical form
Calcium folinate is indicated:
- To reduce or counteract the toxicity and effect of folic acid antagonists such as methotrexate in cytotoxic therapy or overdose in adults and children ("calcium folinate rescue").
- In combination with 5-fluorouracil in cytotoxic therapy:
  - in advanced or metastatic colorectal cancer.
  - as adjuvant chemotherapy for stage III colon cancer (T1-4 N1-2) after previous curative resection of the primary tumor.
- For treatment of folic acid deficiencies of various origins, which cannot be corrected via diet.

For further information see "Summary of product characteristics".

Solution for injection

Posology
- Calcium folinate rescue: 6 - 12 mg/m^2 12 - 24 hours after the start of methotrexate infusion, same dosage during the following 72 hours every 6 hours.
- In combination with 5-fluorouracil: single doses of 20 mg/m^2 body surface area (BSA)/day up to 500 mg/m^2 body surface area (BSA)/day.
- As an antidote to folic acid antagonists: dosage depends on folic acid antagonist.
- In case of folic acid deficiency 5 - 15 mg daily.

For further information see "Summary of product characteristics".

Contraindications
- Hypersensitivity to calcium folinate or to any of the other excipients.
- Pernicious anemia or other anemia due to vitamin B_{12} deficiency.
- Treatment of pregnant or breastfeeding women in combination with 5-FU or Methotrexat, see "Summary of product characteristics"

Undesirable effects
Uncommon: fever was observed after the application of calcium folinate as a solution for injection. *Rare:* insomnia, restlessness and depression after high doses, gastrointestinal disorders after high doses, increase of seizure frequency in epileptics. *Very rare:* allergic reactions, including anaphylactoid/anaphylactic reactions and urticaria.

Combination therapy with 5-fluorouracil:
Very common: bone marrow insufficiency including serious cases, mucositis, including stomatitis and cheilitis. Deaths occurred as a result of mucositis. *Common:* palmar plantar erythrodysesthesia. *Not known:* hyperammonaemia. *Monthly therapy protocol: very common:* vomiting and nausea. *Weekly therapy protocol: Very common:* diarrhea of higher severity and dehydration, which requires hospitalization for treatment and can even lead to death.

Interactions
Reduction or abolishment of the efficacy of folic acid antagonists (e.g. cotrimoxazole, pyrimethamine), reduction of the effects of anti-epileptic medicinal products: phenobarbital, primidone, phenytoin and succinimide (increase in seizure frequency), enhancing efficacy and toxicity of 5-fluorouracil.

Contains sodium hydroxide.

Special warnings and precautions for use
Calcium folinate may only be administered as an intramuscular or intravenous injection and must not be applied intrathecally.

Prescription-only

CALCIUMFOLINAT biosyn liquid

1 injection vial of 100 ml
solution for injection (N1)
PZN 07657708

Ordering telephone number:
+49 (0)711 57532 – 404 / – 00

Fax number:
+49 (0)711 57532 – 301

E-mail:
Auftragsannahme@biosyn.de

FOLSÄURE biosyn

OTC

FOLSÄURE biosyn

50 tablets (N2)
PZN 03886642

Active substance
Folic acid
5,0 mg per tablet

Composition
1 tablet contains 5.0 mg folic acid.
Excipients: lactose monohydrate, cellulose powder, talc, colloidal anhydrous silica, magnesium stearate (Ph. Eur.).

Indications and pharmaceutical form
Therapy of folic acid deficiencies that cannot be corrected via diet.

Tablets

Posology
1 - 3 tablets per day as needed (corresponding to 5 -15 mg folic acid).

Contraindications
- Hypersensitivity to folic acid or to any of the other excipients.
- The increase in reticulocytes caused by folic acid can mask a vitamin B_{12} deficiency.
- Because of the risk of irreversible neurological disorders, prior to treatment of megaloblast anemia, it has to be ensured that it is not caused by a vitamin B_{12} deficiency.

Undesirable effects
Rare: at very high doses: sleep disorders, agitation or depression, gastrointestinal disorders. *Not known:* in individual cases allergic reactions, e.g. as erythema, pruritus, bronchospasm, nausea or anaphylactic shock can occur.

Interactions
- Increase in cramp susceptibility under anticonvulsant therapy.
- Mutual inhibition of the effect of high doses of folic acid and simultaneous administration of folic acid antagonists such as chemotherapeutics (trimethroprim, proguanil, pyrimethamine) and cytostatic drugs (methotrexate).
- Severe diarrhea when high doses of folic acid are administered together with fluorouracil.
- Inhibition of folic acid effect by chloramphenicol.

Contains lactose.

FOLSÄURE biosyn contains no yeast and is gluten- and gelatin-free. Suitable for vegetarians and vegans.

Ordering telephone number:
+49 (0)711 57532–404 / –00

Fax number:
+49 (0)711 57532–301

E-mail:
Auftragsannahme@biosyn.de

Information from biosyn Arzneimittel

We would be pleased to provide you with comprehensive information on the following topic:

Information for healthcare professionals

FOLIC ACID biosyn perfectly dosed with 5 mg. Folder for healthcare professionals.
Format: DIN A4
12 pages

Order by e-mail: information@biosyn.de
(please specify desired materials

Food supplements

selenase® 100 XL

Food supplement with inorganic selenium (sodium selenite)

Tablets containing 100 µg inorganic selenium (corresponding to 0.333 mg sodium selenite pentahydrate) to optimize the supply of selenium. Your contribution to protect cells from oxidative stress and ensure the normal functioning of the immune system.

selenase® 100 XL offers decisive advantages:

• Rapid absorption

• Immediate incorporation into selenium-dependent enzymes

Food supplements should not be used as a substitute for a balanced and varied diet.

A varied and balanced as well as a healthy diet and a healthy lifestyle are of great importance.

Do not exceed the recommended daily dose. Keep out of reach of small children.

List of ingredients

Separating agent: monocalcium phosphate, filler: microcrystalline cellulose, coating: hydroxypropylmethyl cellulose, release agent: magnesium salts of fatty acids, sodium selenite pentahydrate.

Recommended intake

Take 1 tablet daily.

selenase® 100 XL should be taken separately from meals with a little water, e.g. in the morning before breakfast or in the late morning, about an hour from main meals.

Beverages such as fruit juices containing high levels of vitamin C can impair the availability of sodium selenite and should be avoided. With a time interval of about one hour, there are generally no more concerns.

Ingredient	Average content per tablet (daily intake)
Selenium	100 µg (182 %)*

* Reference quantity for the daily supply of vitamins and minerals - Nutrient reference values (NRV)

selenase® 100 XL contains no yeast and is gluten-, lactose- and gelatin-free. Suitable for vegetarians and vegans.

Food supplement

selenase® 100 XL

100 tablets
PZN 06728955

Ordering telephone number:
+49 (0)711 57532–404 / –00

Fax number:
+49 (0)711 57532–301

E-mail:
Auftragsannahme@biosyn.de

selenase® 200 XXL

Food supplement

selenase® 200 XXL

100 tablets
PZN 06075068

Food supplement with inorganic selenium (sodium selenite)

Food supplement with inorganic selenium (sodium selenite) tablets with 200 µg inorganic selenium (corresponding to 0.666 mg sodium selenite pentahydrate) to optimize the supply of selenium. Your contribution to protect cells from oxidative stress and ensure the normal functioning of the immune system.

½ tablet contains 100 µg selenium (equivalent to 0.333 mg sodium selenite pentahydrate).

selenase® 200 XXL offers decisive advantages:

- Rapid absorption
- Immediate incorporation into selenium-dependent enzymes
- Flexible dosing through break groove.

Food supplements should not be used as a substitute for a balanced and varied diet.

A varied and balanced diet and a healthy lifestyle are of great importance.

Do not exceed the recommended daily dose. Keep out of reach of small children.

List of ingredients

Release agent: monocalcium phosphate, filler: microcrystalline cellulose, coating: hydroxypropylmethylcellulose, release agent: magnesium salts of fatty acids, sodium selenite pentahydrate.

Recommended intake

Take 1 tablet daily. In situations with a lower requirement, only ½ tablet can be taken.

selenase® 200 XXL should be taken separately from meals with a little water, e.g. in the morning before breakfast or in the late morning, about an hour from the main meals.

Beverages such as fruit juices containing high levels of vitamin C can impair the availability of sodium selenite and should be avoided. With a time interval of about one hour, there are generally no more concerns.

Ingredients	Average content per tablet (daily intake)
Selenium	200 µg (364 %)*

* Reference quantity for the daily supply of vitamins and minerals Nutrient reference values (NRV)

selenase® 200 XXL contains no yeast and is gluten-, lactose- and gelatin-free. Suitable for vegetarians and vegans.

Ordering telephone number:
+49 (0)711 57532–404 / –00

Fax number:
+49 (0)711 57532–301

E-mail:
Auftragsannahme@biosyn.de

CALCIVITASE®

Food supplement with calcium and vitamins D_3 and K for the maintenance of normal and healthy bones

Calcium tablets

Calcium contributes to normal blood coagulation, energy metabolism, muscle function, signal transmission between nerve cells and normal digestive enzyme function. Calcium has a function in cell division and specialization and is needed for the preservation of bones and teeth.

Vitamin D_3 contributes to a normal absorption/utilization of calcium and phosphorus, an adequate calcium level in the blood, the preservation of bones, muscle function and teeth. Vitamin D_3 supports immune defense and cell division.

Vitamin K contributes to bone preservation and normal blood coagulation.

A varied and balanced diet and a healthy lifestyle are of great importance.

List of ingredients

Calcium carbonate; inulin; rapeseed oil, cured; corn starch; filler (crosslinked carboxymethylcellulose); coating (hydroxypropylmethylcellulose); cholecalciferol (vitamin D_3), phyllochinone (vitamin K).

Recommended intake

Adults take 1 tablet of CALCIVITASE® 3 times daily with meals with sufficient liquid.

CALCIVITASE® is a food supplement containing calcium, vitamin D_3, vitamin K and inulin. According to a study, a calcium and vitamin D_3 supply that is sufficient in the long term is also particularly useful for women over 50 years of age.

Long-term use of CALCIVITASE® is recommended.

Ingredients	Average content per tablet	Average content of daily intake (3 tablets)
Calcium	250 mg (31 %)*	750 mg (94 %)*
Vitamin D_3	80 I.U. / 2.0 µg (40 %)*	240 I.U. / 6.0 µg (120 %)*
Vitamin K	20 µg (27 %)*	60 µg (80 %)*
Inulin	100 mg	300 mg

* Reference quantity for the daily supply of vitamins and minerals Nutrient reference values (NRV)

CALCIVITASE® contains no yeast and is gluten-, lactose- and gelatin-free. Suitable for vegetarians and vegans.

Food supplement

CALCIVITASE®

100 tablets
PZN 04109136

Ordering telephone number:
+49 (0)711 57532–404 / –00

Fax number:
+49 (0)711 57532–301

E-mail:
Auftragsannahme@biosyn.de

CAREIMMUN® – a promise

Our CAREIMMUN® series is developed according to the latest scientific findings and produced in compliance with state-of-the-art international standards – exactly the same high standards we apply to our pharmaceuticals for intensive care medicine, oncology, and chronic thyroid diseases.

Food supplements are precisely dosed to provide your body with everything it needs for basic care, while at the same time avoiding overdoses of individual ingredients, as can be the case in many competitor products.

The entire CAREIMMUN® series contains vitamins, minerals and trace elements, that the body requires to meet the demands of the present day. Of course, all products are very well tolerated.

Please remember that even the best food supplement is no substitute for a balanced and varied diet.

CAREIMMUN Basic®

Food supplement

CAREIMMUN Basic®

30 capsules
PZN 09174517

90 capsules
PZN 04472428

270 capsules
PZN 04472434

Food supplement with vitamins, minerals, trace elements, coenzyme Q10 and secondary plant substances (lycopene and lutein)

- for normal metabolic processes
- with zinc: contributes to normal function of the immune system
- with selenium: contributes to cell protection against oxidative stress

List of ingredients

Filler: microcrystalline cellulose; L-ascorbic acid (vitamin C), coating: hydroxypropylmethylcellulose; magnesium oxide, coenzyme Q10, nicotinamide (vitamin B), D-α-tocopheryl succinate (vitamin E), Lycopene, zinc oxide, copper gluconate, coating agent: shellac; calcium D-pantothenate (vitamin B_5), lutein, corn starch, β-carotene, sucrose, thickener: gum arabic; retinyl acetate (vitamin A), pyridoxine hydrochloride (vitamin B_6), thiamine mononitrate (vitamin B_1), riboflavin (vitamin B_2), vegetable oils (coconut, palm), separating agents: magnesium salts of fatty acids; calcium L-methylfolate, maltodextrin, sodium selenate, chromium[III] chloride, sodium molybdate, D-biotin, cholecalciferol (vitamin D_3), separating agent: tricalcium phosphate; acidifier: trisodium citrate; cyanocobalamine (vitamin B_{12} acidifier: citric acid, thickener: sodium alginate.

Recommended intake

Take one capsule per day with liquid. An advantage is the special coating of the pellets, which ensures that the capsules can be opened and the pellets can be taken scattered over food, for example. Food supplements should not be used as a substitute for a balanced and varied diet. A varied and balanced diet and a healthy lifestyle are of great importance. Do not exceed the recommended daily intake.

Nutrient	Average content per capsule (daily intake)
Coenzyme Q10	20 mg
Lycopin	1.3 mg
Lutein	1.3 mg
Vitamin A	317 µg RE / 1056 I.U. (40 %)
Of these: β[beta]-Carotin	167 µg RE / 556 I.U.
Vitamin C	100 mg (125 %)
Vitamin E	12 mg (100 %)
Vitamin D3	20 µg (400 %)
Vitamin B1	1 mg (91 %)
Vitamin B2	1.2 mg (86 %)
Vitamin B6	1.2 mg (86 %)
Pantothenic acid	6 mg (100 %)
Vitamin B12	2 µg (180 %)
Biotin	70 µg (140 %)
Folic acid	200 µg (100 %)
Niacin	16 mg NE (100 %)
Chromium	30 µg (75 %)
Copper	1 mg (100 %)
Molybdenum	50 µg (100 %)
Selenium	70 µg (127 %)
Zinc	10 mg (100 %)

* Reference quantities for daily intake of vitamins and minerals – Nutrient Reference Values (NRV) RE = retinol equivalent; I.U. = international unit; NE = niacin equivalent

CAREIMMUN Basic® contains no yeast and is gluten-, lactose- and gelatin-free. Suitable for vegetarians.

Ordering telephone number:
+49 (0)711 57532–404 / –00

Fax number:
+49 (0)711 57532–301

E-mail:
Auftragsannahme@biosyn.de

CAREIMMUN Onco®

Multivitamin preparation with high-dose coenzyme Q10

- with zinc: contributes to normal function of the immune system
- with folic acid: to decrease tiredness and fatigue
- with selenium: to protect cells from oxidative stress
- with zinc: to support normal DNA synthesis
- with vitamin B_{12}: has a function in cell division
- with vitamin B_2: to preserve mucous membranes

List of ingredients

Filler: microcrystalline cellulose; L-ascorbic acid (vitamin C), coating: hydroxypropylmethylcellulose; coenzyme Q10, nicotinamide (vitamin B_3), Lutein, Lycopene, D-α-tocopheryl succinate (vitamin E), zinc oxide, copper gluconate, coating: shellac; calcium D-pantothenate (vitamin B_5), corn starch, release agent: dicalcium phosphate; sucrose, thickener: gum arabic; pyridoxine hydrochloride (vitamin B_6), thiamine mononitrate (vitamin B_1), Riboflavin (vitamin B_2), vegetable Oils (coconut, palm), separating agent: magnesium salts of edible fatty acids; maltodextrin, calcium L-methylfolate, Sodium selenate, Chromium[III] chloride, Sodium molybdate, D-biotin, cholecalciferol (vitamin D), separating agent: tricalcium phosphate; acidifier: trisodium citrate; cyanocobalamin (vitamin B_{12}), acidifier: citric acid, thickener: sodium alginate.

Recommended intake

Take one capsule per day with liquid. An advantage is the special coating of the pellets, which ensures that the capsules can be opened and the pellets can be taken scattered over food, for example. Food supplements should not be used as a substitute for a balanced and varied diet. A varied and balanced diet and a healthy lifestyle are of great importance. Do not exceed the recommended daily intake.

Nutrient	Average content per capsule (daily intake)
Coenzyme Q10	50 mg
Lycopin	2.5 mg
Lutein	5 mg
Vitamin C	100 mg (125 %)
Vitamin E	12 mg (100 %)
Vitamin D3	20 µg (400 %)
Vitamin B_1	1 mg (91 %)
Vitamin B_2	1.2 mg (86 %)
Vitamin B_6	1.2 mg (86 %)
Pantothenic acid	6 mg (100 %)
Vitamin B_{12}	3 µg (120 %)
Biotin	70 µg (140 %)
Folic acid	200 µg (100 %)
Niacin	30 mg NE (188 %)
Chromium	30 µg (75 %)
Copper	1 mg (100 %)
Molybdenum	50 µg (100 %)
Selenium	70 µg (127 %)
Zinc	10 mg (100 %)

* Reference quantity for the daily supply of vitamins and minerals
Nutrient reference values (NRV)
I.U. = International Unit; NE = Niacin Equivalent; RE = Retinol Equivalent

CAREIMMUN Onco® contains no yeast and is gluten-, lactose- and gelatin-free. Suitable for vegetarians.

Food supplement

CAREIMMUN Onco®

30 capsules
PZN 13336463

90 capsules
PZN 12599858

270 capsules
PZN 12599864

Ordering telephone number:
+49 (0)711 57532–404 / –00

Fax number:
+49 (0)711 57532–301

E-mail:
Auftragsannahme@biosyn.de

KIMUN®

Food supplement

KIMUN®

30 capsules
PZN 01878868

Food supplement with selenium

Balanced composition with selenium to support the normal function of the immune system.

A varied and balanced diet and a healthy lifestyle are of great importance.

List of ingredients

63.2 % amino acid mixture (L-glutamic acid, L-aspartic acid, L-leucine, L-valine, L-lysine monohydrochloride, L-arginine, L-isoleucine, glycine, L-alanine, L-threonine, L-serine, L-proline, L-phenylalanine, L-methionine, L-histidine monohydrochloride, L-cystine, L-tyrosine); coating: Hydroxypropylmethylcellulose, shellac; filler: microcrystalline cellulose; sodium selenite pentahydrate; dyes: E 101, E 131; separating agent: magnesium salts of fatty acids.

Recommended intake

Take 1 capsule per day about 1 hour before a meal with a little liquid. In exceptional cases, up to five capsules per day can be taken at intervals of one to two hours in stressful situations. If you have difficulty swallowing, open the capsule and swallow the contents with a little liquid.

Special galenics

The capsules contain so-called pellets, which are coated by means of a special process and are thus enteric and small-intestine soluble. This ensures that they are not destroyed in the stomach, but are absorbed unchanged in the small intestine and made available to the body.

The special coating also ensures that the capsules can be opened and the pellets can be taken scattered over the food, for example.

Ingredients	Average content per capsule	Average content per daily intake (max. 5 capsules)
Selenium	30 µg (55 %)*	150 µg (273 %)*

* Reference quantity for the daily supply of vitamins and minerals – Nutrient Reference Values (NRV))

KIMUN® contains no yeast and is gluten-, lactose- and gelatin-free. Suitable for vegetarians.

Ordering telephone number:
+49 (0)711 57532–404 / –00

Fax number:
+49 (0)711 57532–301

E-mail:
Auftragsannahme@biosyn.de

MALEVITAL biosyn®

Food supplement with selenium and coenzyme Q10
Support through selenium
- for normal sperm formation
- to protect against oxidative stress

List of ingredients
Palm oil; beef gelatin; humectant: glycerol; coenzyme Q10; selenium yeast*; Water; coloring agent: calcium carbonate, brilliant blue FCF.
*SelenoPrecise®, EP Patent No. 1 478 732 B1

Recommended intake
Take two capsules daily with liquid.
Food supplements should not be used as a substitute for a balanced and varied diet. A varied and balanced diet as well as a healthy lifestyle are of great importance. The recommended daily intake must not be exceeded.
Store out of reach of small children.

Average nutrient content in MALEVITAL biosyn®

Nutrient	Per capsule	Daily dose	NRV*
Selenium	50 µg	100 µg	182 %
Coenzyme Q10	50 mg	100 mg	n. a.

* Reference quantities for daily intake of vitamins and minerals (NRV = nutrient reference values)

MALEVITAL biosyn® contains no lactose, gluten or preservatives.

Food supplement

MALEVITAL biosyn®

60 capsules
PZN 14261945

Ordering telephone number:
+49 (0)711 57532–404 / –00

Fax number:
+49 (0)711 57532–301

E-mail:
Auftragsannahme@biosyn.de

MICROSAN®

Food supplement

MICROSAN®

30 capsules
PZN 04104357

Food supplements with magnesium, high-dose B vitamins and vitamin C

- Symptoms of fatigue decrease
- The nervous system functions normally
- Mental functions normalize
- Muscle and heart muscle function remain in sync

List of ingredients

Magnesium oxide, coating: hydroxypropylmethylcellulose; L-ascorbic acid (vitamin C), separating agent: talc; filler: microcrystalline cellulose; pyridoxine hydrochloride (vitamin B_6), maltodextrin, calcium L-methylfolate, acidifier: trisodium citrate, citric acid; cyanocobalamine (vitamin B_{12}).

Recommended intake

Take one capsule once a day. Long-term use of MICROSAN® is recommended. Do not exceed the recommended daily intake.

Average nutrient content of MICROSAN®

Ingredients	Average content per capsule	NRV*
Magnesium	300 mg	80 %
Vitamin C	50 mg	63 %
Vitamin B_6	10 mg	714 %
Vitamin B_{12}	10 µg	400 %
Folic acid	400 µg	200 %

* Reference quantities for daily intake of vitamins and minerals (NRV = nutrient reference values)

Influences of different micronutrients

Important for the following functions	Micronutrients
Cell division	Folic acid, B_{12}, magnesium
Energy metabolism	Vitamins B_1, B_2, B_6, B_{12}, niacin, magnesium
Nervous system	Vitamins B_1, B_2, B_6, B_{12}, niacin, magnesium
Reduction of fatigue and tiredness	Vitamins B_2, B_6, B_{12}, niacin, folic acid, magnesium

MICROSAN® contains no yeast and is gluten-, lactose- and gelatin-free. Suitable for vegetarians and vegans.

Ordering telephone number:
+49 (0)711 57532–404 / –00

Fax number:
+49 (0)711 57532–301

E-mail:
Auftragsannahme@biosyn.de

SELENMINERASE®

Food supplement with organic selenium for healthy hair and nails

Selenium helps maintain healthy hair and nails. A varied and balanced diet as well as a healthy lifestyle are of great importance.

List of ingredients

Filler: microcrystalline cellulose; separating agent: dicalcium phosphate; selenium yeast*; separating agent: silicon dioxide; coating agent: hydroxypropylmethylcellulose; separating agent: talcum, magnesium salts of fatty acids; dye: titanium dioxide.

*SelenoPrecise®, EP Patent No. 1 478 732 B1.

Recommended intake

Take one coated tablet per day with liquid.

Average nutrient content in SELENMINERASE®

Nutrient	per coated tablet	NRV*
Selenium	100 µg (91 %)*	182 %

* Reference quantity for the daily supply of vitamins and minerals – Nutrient Reference Values (NRV)

SELENMINERASE® is gluten-, lactose- and gelatin-free. Suitable for vegetarians and vegans.

Food supplement

SELENMINERASE®

60 coated tablets
PZN 13650811

Ordering telephone number:
+49 (0)711 57532–404 / –00

Fax number:
+49 (0)711 57532–301

E-mail:
Auftragsannahme@biosyn.de

THYMO-GLANDURETTEN

Food supplement

THYMO-GLANDURETTEN

90 Tablets
PZN 14294502

Food supplement with thymus extract

List of ingredients
Thymus extract powder from veal (40%); calcium hydrogen phosphate; filler: microcrystalline cellulose; rapeseed oil (hardened); coating agent: shellac; separating agent: magnesium salts of fatty acids; coloring agent: titanium dioxide; separating agent: silicon dioxide, talc; extra virgin olive oil.

Consumption recommendation
Take one tablet three times daily without chewing. THYMO-GLANDURETTEN can be taken in the long term. It has been shown to be useful to take breaks from time to time (e.g. four weeks break after three months of use).

Average nutrient content in THYMO-GLANDURETTEN

Nutrients	per tablet	Daily intake (3 tablets)
Thymus extract	200 mg	600 mg
of which peptides	166 mg	498 mg

THYMO-GLANDURETTEN contains no yeast and is free of gluten, lactose and gelatine.

Ordering telephone number:
+49 (0)711 57532–404 / –00

Fax number:
+49 (0)711 57532–301

E-mail:
Auftragsannahme@biosyn.de

THYMVITAL®

Food supplement with zinc, selenium and thymus extract

List of ingredients

Thymus extract powder of veal (50 %), filler: microcrystalline cellulose, coating: shellac, bovine gelatin (capsule shell), zinc gluconate, sodium selenite pentahydrate.

Recommended intake

1 capsule per day about 30 minutes before a meal, swallow whole with a little liquid.

THYMVITAL® capsules are enteric and small-intestine soluble. They should not be taken simultaneously with high-dose, enteric, small-intestine resistant enzyme preparations (proteological enzymes), as otherwise the thymus extract may be destroyed.

It has been shown to be advisable, for example, to take a four-week break after taking THYMVITAL® for three months.

Special pharmaceutical production

The capsules contain so-called pellets, which are individually coated by means of a special process and are thus enteric and small-intestine soluble. This ensures that they are not destroyed in the stomach, but are absorbed unchanged in the small intestine and made available to the body.

Another advantage is the special coating of the pellets, which ensures that the capsules can be opened and the pellets can be taken scattered over the food, for example.

Average nutrient content of THYMVITAL®

Nutrients	Average content per capsule (daily intake)
Thymus extract	300 mg
Peptides from this	249 mg
Zinc	5 mg (50 %)*
Selenium	100 µg (182 %)*

* Reference quantity for the daily supply of vitamins and minerals – Nutrient Reference Values (NRV))

THYMVITAL® contains no yeast and is gluten and is lactose-free.

Food supplement

THYMVITAL®

30 capsules
PZN 10143864

Ordering telephone number:
+49 (0)711 57532–404 / –00

Fax number:
+49 (0)711 57532–301

E-mail:
Auftragsannahme@biosyn.de

Vit D3 biosyn®

Food supplement

Vit D3 biosyn®

1 × 20 ml drops
PZN 12601012

Food supplement with vitamin D3 for a normally functioning immune system and functioning cell division

Vitamin D_3 is only supplied to 10 - 20 % by food. 80 - 90 % of vitamin D_3 is produced by the body with the help of sunlight itself. 80 - 90 % of vitamin D_3 is only present in food to a limited extent, the highest concentration being in fatty fish, for example salmon or herring.

In older people, a vitamin D_3 deficiency can develop as vitamin D_3 production decreases with age.

Overdose with vitamin D_3 is not to be feared, as the active form is produced in the kidney as required and the rest of the inactive form is excreted.

Vitamin D_3 in the body

Cardiovascular system:

- Effects blood vessel muscles and blood calcium levels

Contributes to normal function of the immune system:

- Induces the differentiation of immune cells.
- Reduces the release of proinflammatory cytokines.
- Regulates autoimmune processes.

Intestines:

- Supports absorption of calcium and phosphate.

Musculature:

- Supports the ability of muscle fibers to contract.

Bones:

- Supports bone mineralization.

List of ingredients

Vegetable oil (palm, coconut), cholecalciferol (vitamin D_3).

Recommended intake

Take one daily drop (0.025 ml) of Vit D3 biosyn® (contains 25 µg or 1,000 I.U. vitamin D_3). This means that more than the complete requirement for vitamin D_3 is covered with just one drop a day. Food supplements should not be used as a substitute for a balanced and varied diet. A diverse diet and a healthy lifestyle are of great importance.

Do not exceed the recommended daily intake.

Vit D3 biosyn® – higher dosage taking into account the latest recommendation of the DGE			
Contents	1 drop (0.025 ml)	% NRV*	% DGE**
Vitamin D3	1,000 I.U. = 25 µg	500 %	125 %

I.U. = International Units

* Reference quantities for the daily supply of vitamins and minerals Nutrient Reference Values (NRV)

** By the German Society for Nutrition (DGE) become 20 µg vitamin D per day recommended in the absence of endogenous synthesis

Vit D3 biosyn® contains no yeast and is gluten- and lactose-free. Suitable for vegetarians.

Ordering telephone number:
+49 (0)711 57532 – 404 / – 00

Fax number:
+49 (0)711 57532 – 301

E-mail:
Auftragsannahme@biosyn.de

Information from biosyn Arzneimittel

We would be pleased to provide you with comprehensive information on our food supplements:

Information for medical experts

CAREIMMUN Basic®
Folder for healthcare professionals
Format: DIN A4
56 pages

CAREIMMUN Onco®
Folder for healthcare professionals
Format: DIN A4
52 pages

MICROSAN®
Folder for healthcare professionals
Format: DIN A4
32 pages

Vit D3 biosyn®
Folder for healthcare professionals
Format: DIN A4
36 pages

Patient information

CAREIMMUN Basic®
for a strong immune system.
Patient brochure
Format: DIN long
36 pages

CAREIMMUN Onco®
for a strong immune system.
Patient brochure
Format: DIN long
36 pages

MICROSAN® makes tired people lively.
Patient brochure
Format: DIN long
28 pages

Vit D3 biosyn®
The sun vitamin for health.
Patient brochure
Format: DIN long
16 pages

THYMO-GLANDURETTEN
Patient brochure
Format: DIN long
16 pages

Order by e-mail, for you and/or your patients, also in larger quantities:
information@biosyn.de (please specify desired materials)

Laboratory analytics

TRACES AND QUANTITY ELEMENTS in whole blood, serum, saliva or urine	
Selenium	Se
Zinc	Zn
Selenium + zinc	Se + Zn
Copper	Cu
Calcium	Ca
Iron	Fe
Magnesium	Mg
Sodium	Na
Potassium	K

HEAVY METALS in whole blood, serum, saliva or urine	
Mercury	Hg
Lead	Pb
Cadmium	Cd
Arsenic	As
Palladium	Pd
Tin	Sn
Platinum	Pt

DENTEST®
Saliva test for heavy metals in the fillings
DENTEST® is an examination that tests the release of mercury from amalgam fillings. A sample of saliva must be taken before (saliva 1) and while chewing a chewing gum (saliva 2). Chewing gum releases ("mobilizes") mercury from defective fillings.

AMTEST®
Urine test for heavy metals in the body
AMTEST® is a test that measures the contamination with a specific heavy metal. A urine sample should be taken before (urine 1) and after mobilization with DMPS (urine 2). DMPS is a chelating agent that forms complexes with bivalent heavy metals and excretes them in the urine. If exposure to a previously unknown heavy metal is suspected, the AMTEST® must always be performed on mercury first. All other metals follow in the order listed (Hg, Cd, Pb, Pd, Pt, As). The measurement of heavy metals in urine is always related to creatinine.

Please request our current analysis form (incl. prices) to carry out the procedure: http://www.biosyn.de/labor/

Product characteristics

Drug Product	Active ingredient/ nutrient	Gluten-free	Lactose-free	Yeast-free	Gelatin-free	Vege-tarian	Vegan
CALCIVITASE®	250 mg Calcium, Vit. D_3, Vit. K, Inulin	☺	☺	☺	☺	☺	☺
CAREIMMUN Basic®	Vit., Minerals, trace elem. (no iron, no iodine)	☺	☺	☺	☺	☺	no
CAREIMMUN Onco®	Vit., Minerals, trace elem. (no iron, no iodine)	☺	☺	☺	☺	☺	no
FOLSÄURE biosyn	Folic acid (5 mg = 5000 µg)	☺	no	☺	☺	☺	☺
KIMUN®	Selenium	☺	☺	☺	☺	☺	no
MALEVITAL biosyn®	Selenium, Coenzyme Q10	☺	☺	☺	no	no	no
MICROSAN®	Vit., folic acid, niacin, magnesium	☺	☺	☺	☺	☺	☺
selenase® 100 µg peroral	100 µg selenium as sodium selenite pentahydrate	☺	☺	☺	☺	☺	☺
selenase® T peroral	500 µg selenium as sodium selenite pentahydrate	☺	☺	☺	☺	☺	☺
selenase® 300 RP	300 µg selenium as sodium selenite pentahydrate	☺	☺	☺	☺	☺	☺
selenase® 50 AP	50 µg selenium as sodium selenite pentahydrate	☺	☺	☺	no	no	no
selenase® 50 peroral	50 µg selenium as sodium selenite pentahydrate	☺	☺	☺	☺	☺	☺
selenase® 50 Mikro-gramm Injektionslösung	50 µg selenium as sodium selenite pentahydrate	☺	☺	☺	☺	☺	☺
selenase® 100 µg pro injectione	100 µg selenium as sodium selenite pentahydrate	☺	☺	☺	☺	☺	☺
selenase® T pro injec-tione	500 µg selenium as sodium selenite pentahydrate	☺	☺	☺	☺	☺	☺
selenase® T pro injec-tione	1000 µg selenium as sodi-um selenite pentahydrate	☺	☺	☺	☺	☺	☺
selenase® RP Tabletten	79 µg selenium as sodium selenite pentahydrate	☺	☺	☺	☺	☺	☺
selenase® 100 XL	100 µg selenium as sodium selenite pentahydrate	☺	☺	☺	☺	☺	☺
selenase® 200 XXL	200 µg selenium as sodium selenite pentahydrate	☺	☺	☺	☺	☺	☺
SELENMINERASE®	100 µg selenium as selenium yeast	☺	☺	no	☺	☺	☺
THYMO-GLANDURETTEN	200 mg thymus extract (calf)	☺	☺	☺	☺	no	no
THYMVITAL®	300 mg thymus extract (calf), 100 µg selenium, 5 mg zinc	☺	☺	☺	no	no	no
VitD3 biosyn®	Vitamin D	☺	☺	☺	☺	☺	no
ZINKOTASE®	25 mg Zinc	☺	☺	☺	☺	☺	☺

Prescription-only pharmaceutical Non-prescription pharmaceutical Food supplement

General Terms and Conditions of Sale and Delivery

Order address/Order acceptance:

biosyn Arzneimittel GmbH
Postfach 1246
70702 Fellbach / Germany
Tel.: +49 (0)711 / 57532–00 / –404
Fax: +49 (0)711 / 57532–301
E-mail:
Auftragsannahme@biosyn.de

We will be happy to answer your medical questions at our Info Line:
+49 (0)711 / 57532–202

Storage instructions for all preparations

Dry, normal room temperature (up to 25 °C).

Exceptions:
CALCIUMFOLINAT biosyn liquid and MEPTID®
Store in the refrigerator at +2 °C to +8 °C.

Please send returns to:

biosyn Arzneimittel GmbH
Returns Department
Schorndorfer Straße 32
70734 Fellbach

1. General:

These general terms and conditions of sale and delivery apply to all our business transactions with the customer and become a part of the purchase contract. They apply in particular to all future transactions, even if no express reference is made to them.

General terms and conditions of the customer such as purchasing conditions shall not become part of the contract unless we expressly accept them in writing in individual cases.

Should any provision of these general terms and conditions of sale and delivery become invalid, this shall not affect the validity of the other provisions.

2. Purchase and order processing:

Order acceptance by telephone: 8:00am - 5:00pm. Orders are usually dispatched on the day of receipt of the post, the closing time for dispatch is 4:00pm.

Our offers are subject to change without notice with regard to price, quantity, delivery time and delivery options. Orders become binding only by our written confirmation or by sending the goods and issuing the invoice. Invoicing is always at the prices valid on the day of delivery plus the legally valid value-added tax.

3. Shipment:

Shipment shall be at the risk of the consignee and shall normally be made as freight/mail, free destination if the net order value exceeds 250 euros.

In case of a smaller order value, pro rata postage and packaging costs of currently 5.50 euros will be charged.

Additional costs for delivery charges and fees for fast or express deliveries shall be borne by the recipient. Shipping method and route are chosen by us. Our obligation to deliver shall be suspended for as long as the buyer is in arrears with any payment due.

Shipping and packaging materials are generally free of charge. If special packaging or containers, refrigerated shipping or pallets are required for transport, the corresponding additional costs will be charged. The stated shipping conditions apply exclusively within Germany. Additional expenses for deliveries abroad (e.g. transport costs, customs, or insurance fees) shall be borne by the buyer.

4. Terms of payment:

To simplify payment transactions, we recommend that you join the SEPA direct debit procedure. You can receive a corresponding form from us at any time. We grant a 1.5% discount with the SEPA direct debit procedure, the direct debit takes place within 8 days from the invoice date. Otherwise the invoice amounts are to be paid within 30 days without deduction or within 10 days with 1.0% cash discount, in each case after the invoice date.

If payment terms are exceeded, default interest of 8% will be charged, without prejudice to further rights.

For orders from abroad, we reserve the right to demand payment in advance.

5. Return policy/return shipments::

We can only accept returns of complete and undamaged original goods. We can only refund preparations ordered directly from us. As a refund you will receive a replacement delivery or a credit note. Rejected goods are always to be returned to us. A return request must always be faxed or sent before all return deliveries, stating the invoice number and date as well as the customer and batch number (see point 2 for contact details). Returns without indication of a marketability confirmation according to AMG with signature and stamp will not be accepted.

Unannounced goods sent in will not be reimbursed by us and will be properly disposed of as hazardous waste without delay. At the sender's request, a declaration of destruction will be issued. Articles with remaining shelf life of less than 12 months will only be settled or credited by replacement delivery if reported within 10 working days from the delivery date and only if the goods are still marketable. Drug products whose expiration date has expired cannot be refunded.

In the case of refrigerated articles, return or exchange is excluded for reasons of product safety, as compliance with the storage conditions cannot be verified.

Transport damage (externally visible or externally invisible, concealed damage) must be reported to us immediately with a damage report (received from biosyn) within 5 working days after receipt of the shipment. Later complaints cannot be considered. Damaged preparations must be returned to us postage paid together with the damage report. You will receive a replacement delivery for the damaged goods.

6. Delivery of goods:

The preparations listed in our price list may only be offered, sold or distributed in their original packaging and not in partial quantities. The individual sale of portions taken from an institution package, bundle package, or hospital package is not permitted.

7 Retention of title:

The delivered goods or their proceeds shall only become the property of the buyer after full payment of all liabilities arising from the business relationship. The customer is entitled to sell the goods delivered by us in the normal course of business, unless he is in default of payment or has stopped payments. The buyer may not pledge the goods or assign them as security. If the reserved goods are resold before payment of the purchase price, the purchaser hereby assigns to us the claims arising therefrom. However, the customer may collect the claims assigned to us as long as he is not in default of payment or has not stopped payments.

8 Place of performance: Fellbach.

9 Place of jurisdiction: Stuttgart.

10 Choice of law:

The law of the Federal Republic of Germany shall apply to all legal relationships between us and the customer.

Order address/Order acceptance:

biosyn Arzneimittel GmbH
Postfach 1246
70702 Fellbach / Germany
Tel.: +49 (0)711 / 57532 – 00 / – 404
Fax: +49 (0)711 / 57532 – 301
E-mail:
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Exceptions:
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Store in the refrigerator at +2 °C to +8 °C.

Please send returns to:

biosyn Arzneimittel GmbH
Returns Department
Schorndorfer Straße 32
70734 Fellbach

biosyn Arzneimittel GmbH

World market leader in high-dose selenium injections

biosyn Arzneimittel GmbH is a pharmaceutical and biotech company based in Fellbach, Germany specializing in trace elements, world market leader in high-dose selenium injections, developer and operator of two globally unique GMP active ingredient products and also active in the biotech sector with a glycoprotein isolated from the Megathura crenulata, a marine snail found in California. 70 percent of sales are generated outside Germany in 26 countries around the world.

Active in the fields of intensive care medicine, oncology and endocrinology, biosyn and its products are a partner for hospitals and general practitioners, as well as for naturopaths and holistic health practitioners. The employees also pursue research and development, and keep abreast of current medical scientific literature and modern online marketing. The medium-sized family business attaches great importance to an open, committed and customer-oriented corporate culture.

Newsletter

Subscribe to our online newsletter
to receive the latest information.
Order by E Mail:
information@biosyn.de (keyword “Newsletter”)

You are welcome to send your patients the patient newsletter
recommend “immuNews".
Order by e-mail:
information@biosyn.de (keyword “immuNews”).

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Preparations

Medicinal products and food supplements

01 D01 586/C · Medical Experts · 04/19 · DD 0,25

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70734 Fellbach, Germany
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Fax: +49 (0)711 57532-99
information@biosyn.de

www.biosyn.de
www.biosynpharma.com

we are
research

biosyn