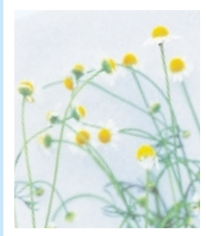


Anthroposophic Medicines

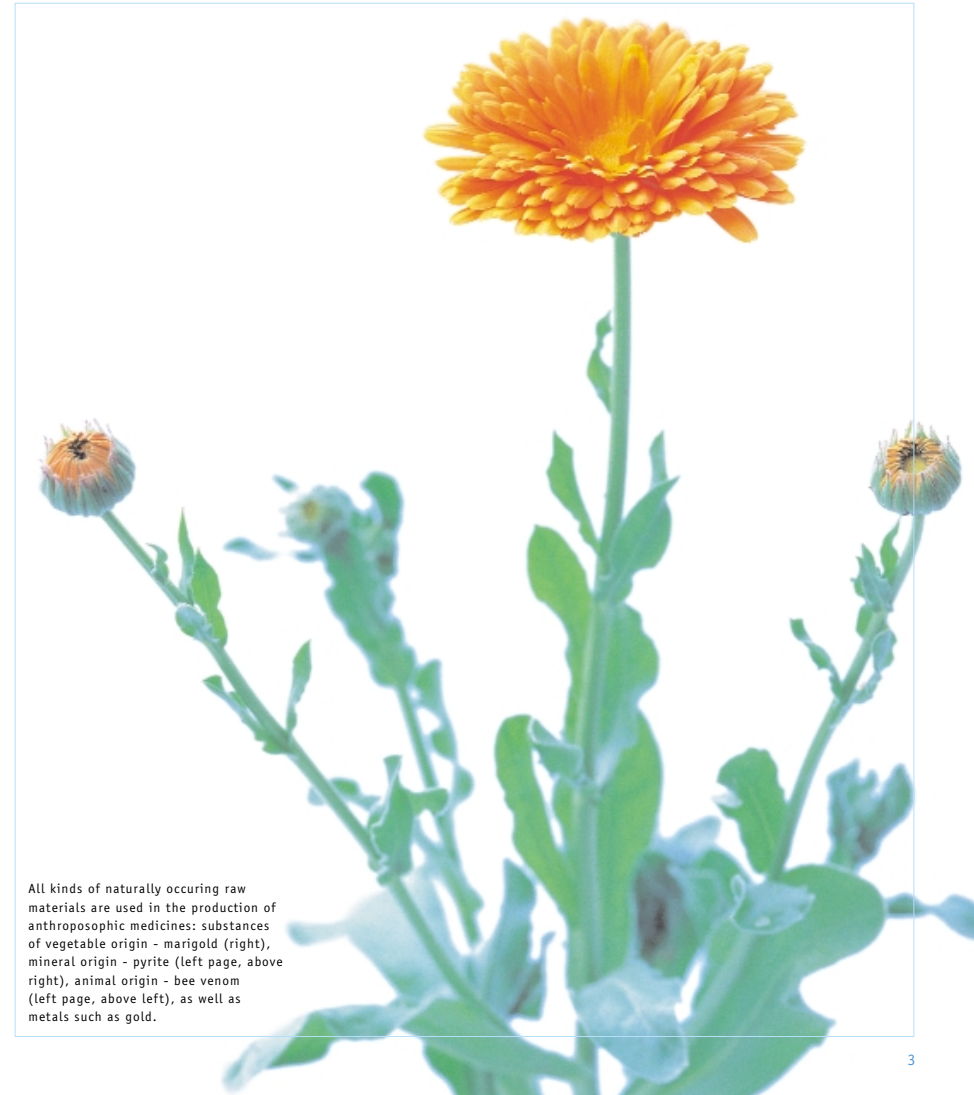


Their origin, production and application

Anthroposophic Medicines



All anthroposophic medicines are designed to stimulate the patient's powers of self-healing. In this way they complement conventional medication. Where conventional medicine concentrates solely on destroying the agents of disease, suppressing associated processes and replacing missing substances (e.g. vitamins, hormones, blood elements), anthroposophic medicine, wherever possible and sensible, aims to enable the human organism to overcome a disease through its own resources. The emphasis is on restoring the balance of bodily functions and strengthening the immune system. The right medicines play a major role in this process.



All kinds of naturally occurring raw materials are used in the production of anthroposophic medicines: substances of vegetable origin - marigold (right), mineral origin - pyrite (left page, above right), animal origin - bee venom (left page, above left), as well as metals such as gold.



Producing yellow gentian root tincture (*gentiana lutea*) in the laboratory: the root is separated from the rest of the plant, finely chopped with a knife, and then crushed in the mill.



Anthroposophic medicines

Anthroposophic medicine uses mineral, vegetable, metal, and animal-based raw materials in the production of medicines. For instance, quartz, sulphur, and lime are typical mineral substances, while arnica, yellow gentian, and chamomile are well-known medicinal herbs. Of the metals, gold, silver, iron, and tin are frequently used, while animal-based substances include insect venom.

The raw materials used by anthroposophic medicine are also common to other therapies, such as homoeopathy and herbal medicine. Even conventional medicine uses bee venom, iron or sulphur in a number of medicines, eg "Forapin" – bee venom used in the treatment of rheumatism – albeit in highly concentrated form.

To a great extent, the character of a particular therapy is determined by its medication: homoeopaths use homoeopa-

thic medicines; herbalists favour substances of vegetable origin, while synthetic chemical substances dominate modern conventional medicine.

Anthroposophic medicines, on the other hand, are multi-faceted in orientation. Their spectrum includes homoeo-

HOMOEOPATHY AND ALLOPATHY

Both terms are derived from the Greek: *homios* = similar, *allos* = different, *pathos* = disease. Homoeopathy seeks to heal "like with like".

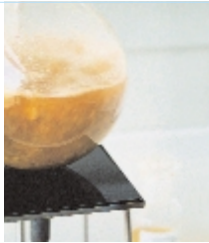
For each patient, the doctor must find the substance that causes similar symptoms in healthy individuals. This substance is then administered in a particular dilution (potency), thereby stimulating the organism's capacity of self-regulation. Conventional medicine, on the other hand, uses allopathic medication as a means of supplementing a bodily insufficiency and of regulating and sometimes even suppressing processes associated with the disease.

pathic potencies, vegetable concentrates, not to mention compounds of a more complex nature. In addition, there are several substances that typify anthroposophic medicines – such as metal mirrors or tinctures derived from plants fertilised with metallic salts (vegetabilised metals).

An anthroposophic pharmacopoeia is currently being created with the aim of providing a published summary of all substances used in the production of anthroposophic medicines and the forms of processing approved.

The context is crucial

What's special about anthroposophic medicines? As with anthroposophic therapy as a whole, they are both disease- and patient-oriented. Or in other words, a prescription is not just based on a single diagnosis supported by findings, but instead on the entire context of the individual's health profile as demonstrated by the disease. The task of the doctor is to



During the final stage, the crushed pieces of root are brewed in a solution of water and alcohol (producing a decoction).



recognise what forces – occurring to the wrong degree, at the wrong time, and in the wrong place – are causing the problem.

Is the principal cause of the disease disrupted organ function (physiological level), or mental tension (psychic level), or have organs undergone a real physical change (anatomical level)? Such analysis helps the doctor decide which medicine or therapy should be prescribed.

At the same time, the doctor also considers to what degree the disease has weakened the patient. Sometimes it is necessary to stabilise the patient's physical condition with conventional medication first, subsequently administering anthroposophic medicines in order to stimulate the individual's powers of self-healing.

When selecting a medicine, the anthroposophic doctor does not simply consider what has caused the disease in question. The decision-making process also takes other factors and characteristics

into account. For instance the same medication – in this instance rock salt (naturally occurring salt, also known as halite, chemical abbreviation: NaCl) – is used to treat a variety of diseases, from chronic rhinitis and chronic bronchitis to wet eczema. Why? Because the characteristic profiles of these three diseases are similar: in all of them, two opposing tendencies – solidification and liquefaction – occur simultaneously. In cases of chronic rhinitis, the nose can become encrusted, yet it still continues to run.

In cases of chronic bronchitis, mucous membranes in the respiratory tract waste away as though scarred, yet they nevertheless continue to produce mucous. Skin demonstrating symptoms of wet eczema becomes thicker and coarser, yet still manages to secrete a lot of fluid. Rock salt is similarly contradictory in its make-up. It occurs both in solid form in underground salt reserves and in soluble form in seawater. It can both:

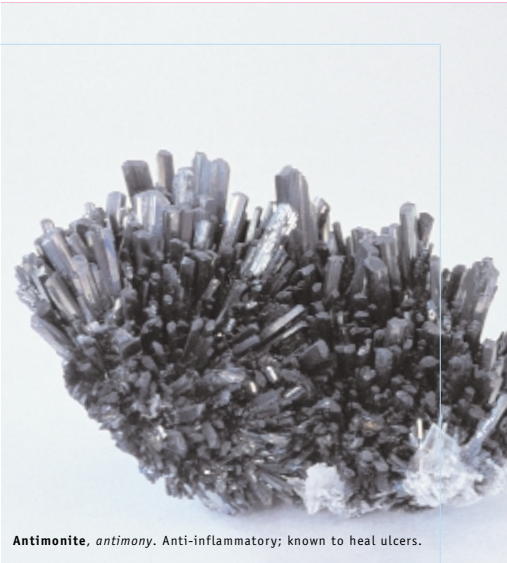
crystallise into lumps and dissolve into liquid. In contrast to other salts, it is unique in that it doesn't require a rise in temperature to dissolve or a drop in temperature to crystallise. Anthroposophic medicine therefore posits – and this has been confirmed in practice – that rock salt is especially suited to restoring the disturbed balance between solidification and liquefaction in the above-mentioned diseases. The use of rock salt in the treatment of all three diseases is founded on this anthroposophic rationale.

That which initially seems strange or incomprehensible becomes logical on closer examination. The selection of anthroposophic medicines in the treatment of other diseases follows similar principles.

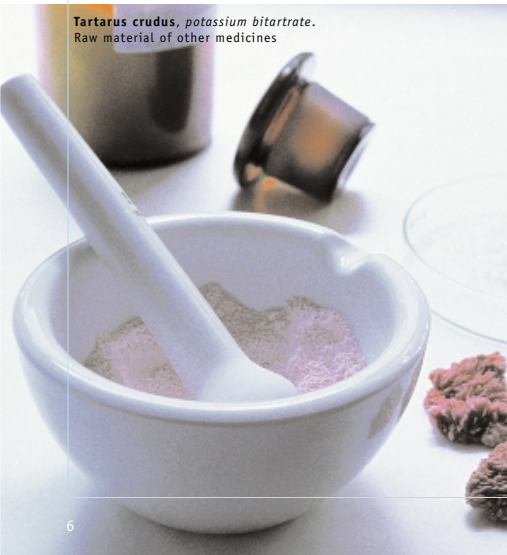
Even in conventional medicine different diseases are often treated with the same medication: tonsillitis, nephritis, and traumatic erysipelas are all treated with penicillin – since all three are caused



Gentiana lutea, yellow gentian. The root is used in medicine production.



Antimonite, *antimony*. Anti-inflammatory; known to heal ulcers.



Tartarus crudus, *potassium bitartrate*. Raw material of other medicines



Matricaria chamomilla, *chamomile*. The whole plant (*planta tota*) is used.



The decoction of yellow gentian root (left) and the preliminary final product: the tincture (yellow liquid in the bottle to the right). This will be succussed further to produce medicinal drops.



by strains of streptococcal bacteria. Instead of common disease characteristics, the determining factor in this case is the physical presence of streptococci.

From globuli to injections

All medicines are prescribed with the aim of influencing particular processes that

have been altered by the disease. Depending on the type of disorder in question, the substances may be administered in a variety of different forms:

- **externally** as eye drops, nasal sprays, emulsions, gels, essences, oils, pastes, ointments, tinctures, powders
- **internally** as drops, homoeopathic potencies (dilutions), powders (trituration), globuli, tablets, capsules, teas, suppositories, and vaginal suppositories

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- **for injection and inhalation** as sterile dilutions and ampoules.

In terms of **external application**, the skin is less a vehicle for introducing the substance into the organism and more a sense organ capable of recognising the externally applied medicinal substance. "Recognise" in this case takes on a far broader meaning – on the face of it we find it hard to accept that skin can recognise something other than the sensations we know from conscious experience: hot or cold, wet or dry, rough or smooth.

But according to anthroposophic medicine, the skin is capable of much more: it can recognise the unconscious, such as the properties of substances applied – the calming effect of lavender, the stimulation brought by rosemary, the boost to the circulation afforded by powdered mustard, to name but a few. The skin communicates this property to

THE DIFFERENT ROUTES FOR TREATING THE PATIENT
The patient can be treated by various different routes: by means of the senses, the digestive system, the respiratory system and the bloodstream. What response the doctor is seeking to stimulate in the body determines the form of access taken. Compresses, rubs, or packs using tinctures, ointments, or essential oils, for instance, stimulate the nervous system via the skin and senses. This encourages forming and structuring processes to take place. Drops, globuli, syrups and powders influence the digestive system and stimulate regenerative, dynamic processes. When inhaled or injected, substances enter the body's circulation directly and have an immediately balancing effect.
The means by which a medicine is administered is therefore of considerable importance, since the body reacts differently to the various methods. When applied externally as an oil, <i>lovage</i> (<i>levisiticum</i>), for instance, has an anti-inflammatory effect on neuritis and otitis media acuta; when taken internally as drops, it stimulates the digestion.



Distilling chamomile flowers to extract the essential oil: respective filled weights of chamomile flowers and water (left), and assembling the distillation equipment in the laboratory



the organism, which in turn reacts accordingly. Substances applied to the skin can therefore affect the entire body – without necessarily penetrating the bloodstream directly.

All medicinal substances that are applied to the skin are principally administered to generate forming and structuring processes within the body, since the skin stimulates these processes via the nervous system.

Whether the different substances are applied as oils, emulsions, ointments, or

in some other form depends on the pharmaceutical processing potential of the individual medicinal substance and on what therapeutic goal is being aimed for. Oil warms, emulsions and gels cool, ointments and pastes conceal, while a tincture is gentle on oozing and broken skin.

When taken **internally**, medicinal substances enter the bloodstream via the mucous membranes in the mouth, stomach and intestines. They stimulate activity in the various digestive glands and

thereby promote a wide variety of metabolic processes within the organism, all of which lead to an increase in production of the body's own substances. All these phases happen at a subconscious level.

One example: drops of yellow gentian extract contain bitter substances that stimulate the secretion of gastric juices and enzymes from the pancreas and gall bladder. These break down nutrients ingested as food into their basic elements: protein into amino acids, carbohydrate into monosaccharides and disaccharides,

THE HEALING POWERS OF STINGING NETTLE, EUCALYPTUS, AND LEMON...

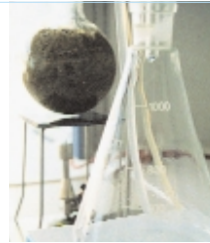
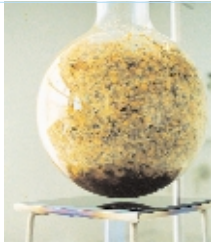
The following three examples aptly demonstrate how the unique properties of medicinal herbs determine their specific therapeutic benefits:

- **Stinging nettles** grow wherever deposited material is absorbed back into the environment: at the edge of rubbish, rubble and compost heaps. In treatment they are used accordingly: wherever something has become diverted from the healthy mainstream – varicose veins, haemorrhoids, rheumatism.

- The **eucalyptus** has very deep roots and requires so much water that it can drain swamps. It is therefore beneficial in the treatment of catarrh, when mucous membranes are “drowning”.

- The **lemon** needs light and heat to flourish. In ripening, however, the fruit doesn't produce sugar – it remains sour. The thick peel keeps the juicy flesh contained. In cases of hay fever, where the patient is being “drained” via the mucous membranes, the lemon promotes containment and draws the fluids together.

Chamomile flowers in distillation flasks: with the application of heat, the volatile essential oils evaporate off from the plant to condense in a flask as azure blue oil



fat into glycerine and fatty acids. Following absorption through the intestinal lining, the body transforms these elements anew into its own substances – into proteins, glycogen (the form of glucose stored by the liver), sugars, and fats.

For the different drops, powders, globuli, tablets, capsules, teas and suppositories to have the desired effect, they must be absorbed through the digestive tract (stomach and intestines) and metabolised.

Substances for **inhalation** or **injection**, on the other hand, enter the circulation directly via the lungs, subcutaneous tissue, muscles or blood. They work more quickly and can be applied more specifically – for instance to an inflamed joint, tense muscles, or inflamed nerves. At the same time, it is also possible to reach most organs of the body via certain reflex zones on the skin (Head's zones – ref Sir Henry Head 1861-1940). The reflex zone

for the liver and gall bladder, for instance, is located under the right-hand shoulder blade. If diseased, these organs may be influenced by injecting this zone.

Anthroposophic medicine combines all three modes of application – external, internal, and injected. The different forms of administration are crucial if a doctor is to design treatments tailored to the needs of individual patients.

Production of anthroposophic medicines

Many different processes are used in the production of anthroposophic medicines. These are generally rhythmic procedures, phased applications of heat, or a combination of both:

- **Dissolution and crystallisation** of mineral salts
- **Extraction** of whole vegetable extracts: in water, water/alcohol or oil form

- **Succession of fluids**: repeated dilution at a ratio of 1:10 carried out under rhythmic shaking. To produce globuli, tiny sugar balls are coated with the potency fluid.

- **Succession of solids**: repeated dilution of solid raw materials (e.g. minerals) at a ratio of 1:10 through the addition of lactose, the substances being ground down rhythmically to a powder (trituration).

- **Maceration**: alcohol/water extract made from fresh or dried shredded vegetable or animal matter.

- **Fermentation**: blending of individual vegetable extracts with lactic acid bacteria – possibly also with sugar – at approximately 37°C to cause fermentation. The extracts may also be rhythmically exposed to sunlight and warmed.

- **Steeped** in boiling water (for an infusion) and **brewed** in boiling water (to create a decoction).

- **Distillation** of essential oils from vegetable matter.



Potassium bitartrate is ground to a powder and purified. The white crystals (tartarus depuratus or cream of tartar) serve as a basis for further medicinal compounds.

- **Melting** and **condensation** of metals to make metal mirrors.
- **Toasting** (aromatisation), **carbonisation**, **incineration** of plants and vegetable matter.

All these different production processes are necessary to unlock the properties of the various raw materials and transform them into medicine. The doctor is therefore able to select medicines to match the needs of individual patients, their symptoms, and their reaction potential exactly. **Such an individualistic approach to treatment requires the availability of a wide range of medicines.**

Combination and composition

Anthroposophic medicines generally contain a number of ingredients. These are not simply combined – they are composed! What does that mean? Like an orchestra, the character of a combined medicine is dependent on the proportions

of its various elements – how many first and second violins, violas, cellos, woodwind, brass, and timpani does the orchestra have? The symphony performed by the orchestra derives its sound from these factors.

The nature of anthroposophic medicines therefore depends on the ingredients they contain and in what concentrations, and how they are composed – the orga-

ORIGIN AND DISTRIBUTION

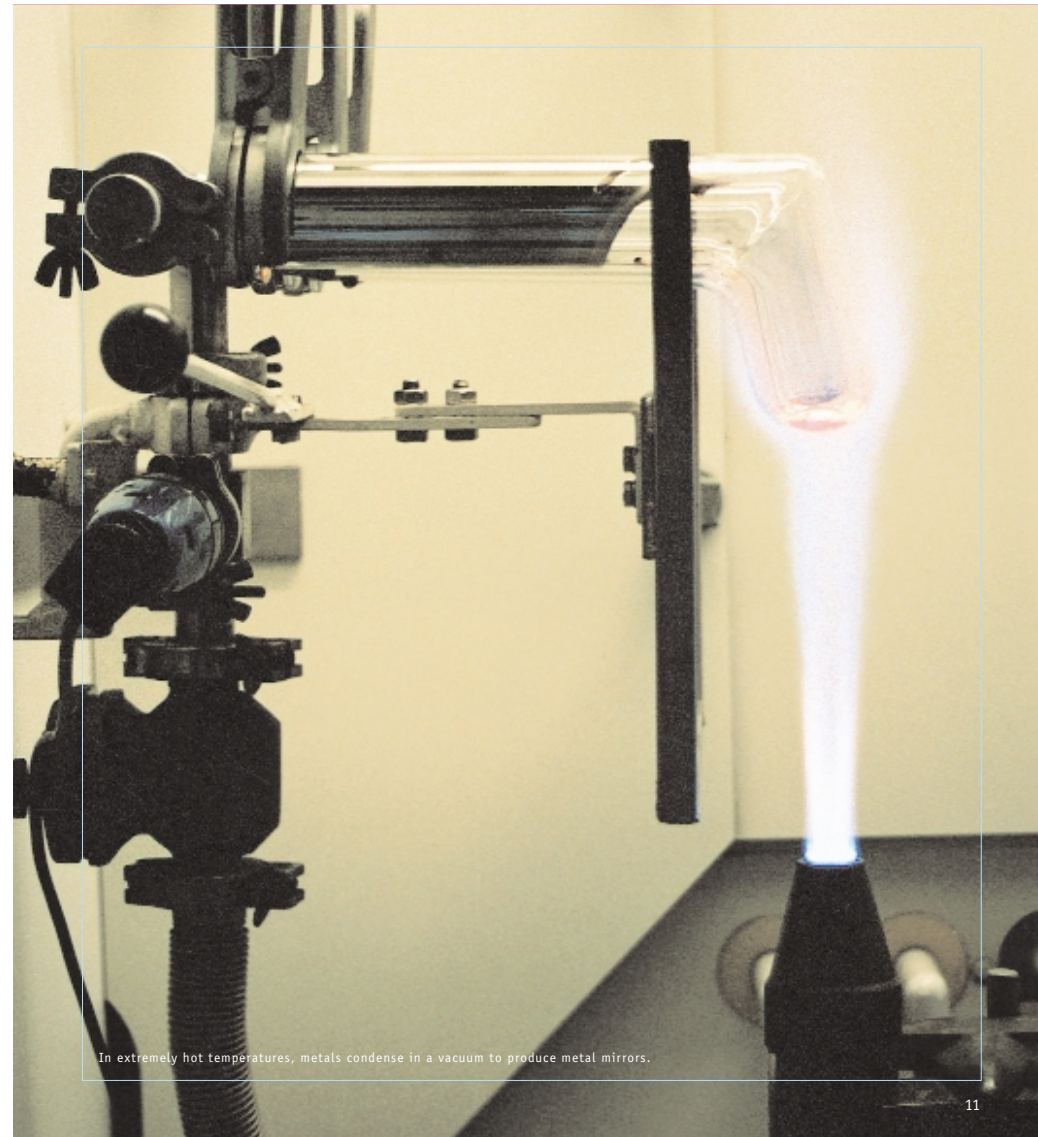
The principles concerning raw material selection for anthroposophic medicines, their processing, and their suitability in treating various diseases have their origins in the work of Dr. Rudolph Steiner. He founded the school of anthroposophic medicine with Dr. Ita Wegman at the beginning of the twentieth century. Since then, the contents and methods of the movement have continued to develop on a global scale. There are currently 22 producers of anthroposophic medicines in 21 different countries.

nism to which they are administered plays the resulting “melody”.

An anthroposophic combination medicine is composed of at least two natural substances. These may be of mineral, vegetable, or animal origin, of different concentrations, and be produced in different ways (boiled, macerated cold, etc.).

Moreover, succussed and non-succussed preparations may also be blended together. Special production processes are used in combining the elements of a combination medicine. These include, for instance, joint succussion, joint exposure to heat, and mechanical blending through fluid engineering.

Through the selection of ingredients, their quantitative ratio and subsequent processing, a new medicinal unit emerges, in the same way that brass, for example, is a metal in its own right and not just the sum of copper and zinc – its alloy-producing components.



In extremely hot temperatures, metals condense in a vacuum to produce metal mirrors.



Natural gold (left) and its precipitate as a gold mirror on the side of a glass vessel. The gold is then scraped off and used either in powders, potencies or ointments.



Adding water (right) to incinerated potassium bitartrate to combine the ashes in a solution.

Definition of efficacy

The efficacy of an anthroposophic medicine is judged by whether it weakens, alleviates or heals a disease, whether it reduces or heals physical and/or mental symptoms, and whether it can even prevent disease.

Efficacy is therefore the sum of the various desired outcomes. The crucial factor in all this is the response of the patient – and that is necessarily unique. It is up to the patient and the doctor to decide whether the treatment has fulfilled its aim, and thus whether or not the medicine in question was effective.

On this point anthroposophic medicine differs from conventional medicine, which demands general proof of medicinal efficacy according to objective criteria. Where such an approach is possible in the case of particular anthroposophic medicines, appropriate evidence is provided. Nevertheless, this is not possible for many anthropo-

sophic medicines, since the reaction of the individual patient is a crucial factor. The analysis of patient reactions – such as improved quality of life – requires a different investigative approach, which nevertheless fully complies with scientific standards.

Registration and Marketing Authorisation

Many anthroposophic medicinal products are on the market e.g. in Germany, Great Britain, Italy, Austria and Sweden, based on national legislation.

Specific rules, introduced in 1992 govern the circulation of medicinal products produced according to a homeopathic manufacturing procedure. This also includes those anthroposophic medicinal products that are produced accordingly. The directive provides two options:

1. Registration A simplified procedure exists for homeopathic medicinal products without indication diluted to a ratio

of at least 1:10 000 (D4) and for oral or external use only. The ingredients must be described in the European Pharmacopoeia. As long as they are not listed therein, the official national pharmacopoeias, such as the German Homoeopathic Pharmacopoeia (GHP) or the French Homoeopathic Pharmacopoeia (PHF) are in force. Manufacturers must document and submit proof of the consistency of quality and safety of the medicinal product. Mutual recognition within the Community has been recommended for the future.

2. Authorisation For those homeopathic medicinal products that do not fulfil the criteria mentioned above Member States are granted the possibility to introduce or retain specific rules. To date only a few EU Member States have taken advantage of this provision: Finland, France and the Netherlands. Belgium and Portugal have introduced special regulations without the corresponding guidelines.

Austria and Germany had adequate rules to be retained. Quality and safety must be proven according to EU-standards. Concerning efficacy, the Member States determine their own standards and the extent of documentation to be submitted for the requested indication. Due to the differing conditions, mutual recognition is not foreseen.

Besides these options the general Directive relating to Medicinal Products allows another means of simplified authorisation for products that have been in medicinal use for at least ten years ("**well-established use**"). This time-span enables safety and efficacy to be proven by means of scientific bibliographies and systematic documentation. As far as quality is concerned, the same standards apply as to allopathic medicinal products.

Since the beginning of 2001, a supplement to the Directive relating to Medicinal Products is under discussion. This would allow a simplified registration

for **traditional** herbal medicinal products used in minor indications. In order to take advantage of this possibility, a medicinal product needs to have been in medicinal use for 30 years, with a minimum of 15 years thereof within the EU Community. The European Agency for the Evaluation of Medicinal Products (EMA) is to set up a special herbal medicines committee that will establish community herbal monographs as a basis for any future application. Mutual recognition will then be possible for herbal medicinal products authorised in this way.

Quality controls

Even in the production phase, anthroposophic medicines are subject to the regulations of the relevant pharmacopoeia. All producers of anthroposophic medicines must abide by and document the prescribed quality controls; they are also subject to routine checks by the relevant authorities. These quality controls speci-

The ash solution is then heated to a high temperature, filtered, and condensed to produce potash crystals.

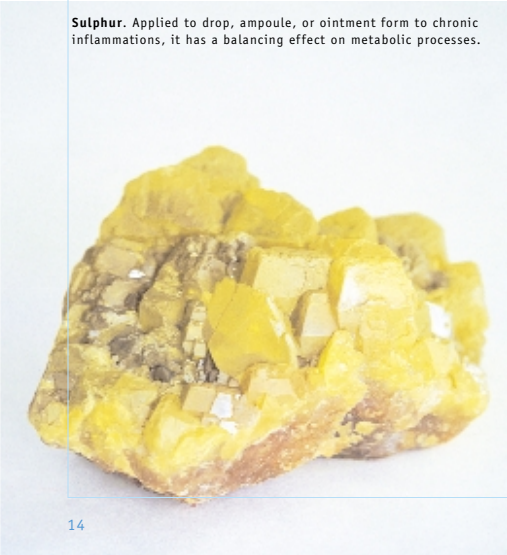


fy, among other things, the testing and chemical analysis of raw materials. Vegetable matter is additionally checked for contamination through herbicides and pesticides, heavy metals and radioactivity, and for the presence of damaging bacteria or fungi. Moreover, all medicines are tested to ascertain whether their composition complies with the existing regulations, and whether they are stable enough to fulfil the planned expiry date (e.g. in the case of tinctures).

It is an inherent feature of herbal medicines that the concentration of different whole extract ingredients varies. They fluctuate slightly from year to year depending on the growing conditions – too much or too little sun, too much or too little rain. Nevertheless, it is still possible to ensure that the medicines produced remain of a standard quality. This is achieved by process standardisation. This means the medicine producer ensures that the parameters for processes



Hypericum, St. John's Wort. The oil extract from the petals alleviates the pain of muscular rheumatism; the water/alcohol whole plant extract is a mood improver.



Sulphur. Applied to drop, ampoule, or ointment form to chronic inflammations, it has a balancing effect on metabolic processes.



Potash crystals begin to form out of the potassium bitartrate solution



The potash derived from the incinerated potassium bitartrate is used both as a medicine in its own right, and as a raw material for all preparations containing potassium.

central to the production of the substance always remain constant. These include the timing of the harvest, as well as the technique and location used, the vegetable matter mixing ratio, extraction and sterile filling procedures, and testing the ingredients of the final product. These may – with the approval of the authorisation body – only fluctuate within a certain range.

The constancy of anthroposophic medicine quality is thereby ensured.

Medicine safety

The same principles apply to medicine safety in terms of anthroposophic medicine as to all other types of medication.

Negative side effects are reported to the producer, the medicine commissions and the monitoring body.

All anthroposophic medicines have very few side effects. This is also true of injections, which are commonly held to be higher risk. A review (Stock 2002) – the results of which were published by the *Deutsche Apotheker-Zeitung* (DAZ, German Chemists' Newspaper) – based on a survey of 327 doctors who use injectable homoeopathic and anthroposophic medicines, found the risk of side effects to be 0.000036%.

This figure is based on 61.5 million ampoules of 21 homoeopathic preparations produced by a specific company

(Heel) injected over a period of five years. This company's total production during these five years was 350 million ampoules using over 800 different substances. During this period not one single side effect was reported for the remaining 290 million ampoules.

The anthroposophic companies Weleda and Wala sold a total of 185 million ampoules between 1990 and 2000. With reference to these, 36 negative side effects were reported in all. That converts to a risk percentage of 0.00000019%.

One thing therefore is for certain: anthroposophic medicines – even the injectable ones – are among the safest on the market.

ON THE RISK OF POISONS PRESENT IN ANTHROPOSOPHIC MEDICINES

Some anthroposophic medicines contain poisons, e.g. deadly nightshade (belladonna), foxglove (digitalis), monkshood (aconitum), and strychnine (Strychnos nux-vomica). However, as with all medicines, following the correct dosage, as shown on the pack or accompanying leaflet, ensures safety in use. Moreover, such medicines are only prescribed in small packs, so that were a patient to take the medication incorrectly (i.e. ingest the contents of an entire pack), no serious or incurable symptoms of poisoning would arise.

