

itating intracapsular cataract extraction and reducing trauma to the eye. For this purpose a solution of chymotrypsin in a sterile diluent such as sodium chloride 0.9% has been injected to irrigate the posterior chamber.

Chymotrypsin has also been given, usually by mouth or topically, for its supposed action in reducing soft-tissue inflammation and oedema associated with surgery or traumatic injuries, and in patients suffering from upper respiratory-tract disorders.

Hypersensitivity reactions have been reported.

Preparations

USP 31: Chymotrypsin for Ophthalmic Solution.

Proprietary Preparations (details are given in Part 3)

Fr.: Alphacutaneej.

Multi-ingredient: **Austria:** Wobenzym; **Braz.:** Parenzyme; Parenzyme Ampicilina; Parenzyme Analgesico; Parenzyme Tetraciclina; Thiomucase; **Cz.:** Wobe-Mugos†; **Wobenzym;** **Ger.:** Enzym-Vied†; Wobe-Mugos E†; **Gr.:** Chymoral; **India:** Alfapsin; Orthal Forte; Soluzym; **Ital.:** Essen Enzimatico†; **Mex.:** Ochozym; Quimotrip; Ribotripin; Wobe-Mugos; **Wobenzym;** **Zimotri;** **Port.:** Chimar; **Rus.:** Wobe-Mugos E (Вобе-Мугос Е); **Wobenzym (Вобэнзим); Spain:** Aristacilina Dental; Dertrase; Dosis Enzimatico; Doxiten Enzimatico; Quimodril; **Venez.:** Wobenzym N.

Ciliary Neurotrophic Factor

CNTF; Factor neurotrófico ciliar.

Цилиарный Нейротрофический Фактор

Profile

Ciliary neurotrophic factor (CNTF) is a nerve growth factor produced in neural tissues and released in response to injury. Recombinant CNTF has been investigated in motor neurone disease (p.2380), peripheral neuropathy, and obesity. CNTF is also under investigation for the treatment of retinitis pigmentosa and atrophic (dry) age-related macular degeneration as an intra-ocular polymer implant containing human retinal epithelial cells that have been genetically modified to secrete CNTF.

References

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- Ettinger MP, *et al.* Recombinant variant of ciliary neurotrophic factor for weight loss in obese adults: a randomized, dose-ranging study. *JAMA* 2003; **289**: 1826–32.
- Sieving PA, *et al.* Ciliary neurotrophic factor (CNTF) for human retinal degeneration: phase I trial of CNTF delivered by encapsulated cell intraocular implants. *Proc Natl Acad Sci U S A* 2006; **103**: 3896–901.

Cimicifuga

Actée à grappes; Black Cohosh; Black Snakeroot; Bugbane; Cimicifuga; Cimicifugae rhizoma; Cohosh negro.

NOTE. Distinguish from Blue Cohosh, p.2267.

Pharmacopoeias. *Chin.* includes the rhizome of *Cimicifuga heracleifolia*, *C. dahurica*, and *C. foetida*.

Jpn includes the rhizome of *C. simplex*, *C. heracleifolia*, *C. dahurica*, and *C. foetida*.

US includes the rhizome and roots of *C. racemosa*. *US* also includes the powdered form.

USP 31 (Black Cohosh). The dried rhizome and roots of *Actaea racemosa* (*Cimicifuga racemosa*). It contains not less than 0.4% triterpene glycosides, calculated as 23-*epi*-26-deoxyactein ($C_{37}H_{56}O_{10}$ = 660.8) with reference to the dried drug. Protect from light and moisture.

Profile

Cimicifuga, the roots of *Cimicifuga racemosa* (*Actaea racemosa*) (Ranunculaceae), is used for menopausal and gynaecological disorders and is included in preparations for coughs.

Homoeopathy. Cimicifuga has been used in homoeopathic medicines under the following names: *Actaea racemosa*; *Actaea rac.*; *Cimicifuga racemosa*; *Cim. rac.*

Adverse effects. A systematic review of the limited data available on adverse effects for cimicifuga concluded that adverse effects are generally mild and transient.¹ It has been reported that cimicifuga may cause dizziness, vertigo, headache, vomiting, and gastrointestinal irritation when taken in large doses.² From January 1998 to February 2005, Health Canada³ had received 7 reports of adverse effects suspected of being associated with black cohosh, including dizziness, rash, pruritus, oedema, increased pulse, bradycardia, atrial fibrillation, changes in plasma-thyroid hormone concentration, vaginal bleeding, and convulsions. However, lack of data meant that causality could not be proved.

As of March 2006, the UK MHRA² had received 21 reports of hepatotoxicity associated with cimicifuga ingestion since 1998, which represented more than two-thirds of the total number of reports for any reaction related to cimicifuga. Likewise, there have been similar reports of hepatotoxicity in other countries including the USA, Germany, and Sweden.² Up to April 2006, 11 cases of liver impairment associated with cimicifuga had also been reported in Australia.⁴ Adverse liver reactions reported worldwide have included abnormal liver function tests, jaundice,

hepatitis, and liver failure.² In general, patients showed signs of recovery on stopping ingestion.² Some regulatory authorities consider that the available evidence supports a rare association between cimicifuga and risk of liver toxicity, even though the level of risk is difficult to determine.^{2,5,6} They have recommended that warnings regarding potential adverse liver reactions should be added to product information and consumers are advised to stop taking cimicifuga if they develop symptoms of liver damage;^{2,5,7} also, patients who have previously had liver or other serious health problems should consult their doctor before starting to take cimicifuga.^{2,6}

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- Adverse Drug Reactions Advisory Committee (ADRAC). Hepatotoxicity with black cohosh. *Aust Adverse Drug React Bull* 2006; **25**: 6. Also available at: <http://www.tga.gov.au/adr/aadrb/aadr0604.htm> (accessed 25/05/06)
- EMEA. EMEA Public statement on herbal medicinal products containing cimicifuga racemosa rhizoma (black cohosh, root) — serious hepatic reactions (issued 18th July 2006). Available at: <http://www.emea.europa.eu/pdfs/human/hmpc/26925906en.pdf> (accessed 01/11/07)
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- Health Canada. Health Canada is advising consumers about a possible link between black cohosh and liver damage (issued 18th August 2006). Available at: http://www.hc-sc.gc.ca/ahc-asc/media/advisories-avis/2006/2006_72_e.html (accessed 05/11/07)

Menopausal disorders. Cimicifuga is used in menopausal disorders, particularly for the relief of hot flashes^{1,6} but several reviews and studies have concluded that there is little evidence of benefit.^{2,3,5,6}

- Pepping J. Black cohosh: *Cimicifuga racemosa*. *Am J Health-Syst Pharm* 1999; **56**: 1400–2.
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- Borrelli F, Ernst E. *Cimicifuga racemosa*: a systematic review of its clinical efficacy. *Eur J Clin Pharmacol* 2002; **58**: 235–41.
- Uebelhack R, *et al.* Black cohosh and St. John's wort for climacteric complaints: a randomized trial. *Obstet Gynecol* 2006; **107**: 247–55.
- Pockaj BA, *et al.* Phase III double-blind, randomized, placebo-controlled crossover trial of black cohosh in the management of hot flashes: NCCCTG Trial N01CC. *J Clin Oncol* 2006; **24**: 2836–41.
- Newton KM, *et al.* Treatment of vasomotor symptoms of menopause with black cohosh, multibiotinicals, soy, hormone therapy, or placebo: a randomized trial. *Ann Intern Med* 2006; **145**: 869–79.

Preparations

USP 31: Black Cohosh Fluidextract; Black Cohosh Tablets; Powdered Black Cohosh Extract.

Proprietary Preparations (details are given in Part 3)

Arg.: Herbaccion Menopausia†; Menofem; **Austria:** Agnuklimin; Jinda; Klimadynon; **Braz.:** Amenopam; Aplause; Clifemin; Mencirax; Menocalm; Menoli†; Tensiane; **Chile:** Ginermaxim; Mensifem†; **Cz.:** Cimisan; Menofem; **Fr.:** Cimipax; **Ger.:** Cefakliman mono; Cimisan; Evalint†; Femi; Femikliman uno; Femilla N†; Feminon C; Femisana gyn; Indische Frauenwurzel†; Jinda; Klimadynon; Kofemin; Natu-fem; Remifemin; Sinei; Solcosplen C; Valverde Traubensilberkerze†; **Hong Kong:** Klimadynon; **Hung.:** Cefakliman mono; Cimicin; Femitan; Klimadynon; Klimapur; Remifemin; **Indon.:** Klimadynon; Remifemin; **Malaysia:** Remifemin; **Mex.:** Avala; Clifenal; Mensifem; **Philipp.:** Remifemin; **Pol.:** Klimasol; Menofem; Remifemin; **Rus.:** Klimadynon (Климадинон); **Singapore:** Klimadynon; Remifemin; **Spain:** Avala; Remifemin; Ymea; **Switz.:** Cimifemine; Climavita; Femicine; Maxifem; **Thai:** Remifemin; **UK:** Menoherb.

Multi-ingredient: **Austral.:** Cimicifuga Compound; Dong Quai Complex; Dyzo; Extralife Meno-Care; Extralife PMS-Care; Herbal PMS Formula†; Lifesystem Herbal Formula 4 Women's Formula†; Medinat Esten†; PMT Complex†; Prosten†; Soy Forte with Black Cohosh†; Women's Formula Herbal Formula 3†; **Austria:** Remifemin plus; **Canada:** Natural HRT; Natural HRT Nighttime; **Cz.:** Dr Theiss Rheuma Creme†; Dr Theiss Schwedenbitter; **Ger.:** Femisana†; Remifemin plus; **Hong Kong:** Phytoestrin†; **Hung.:** Remifemin Plus; **Indon.:** Anstrepe; Femosa; Menose; Menoxa; Osteopor; Pectum; Voldice; **Ital.:** Cimil Complex; Cimil-80; Hipenogyn; **Malaysia:** Gyno-Plus; **Pol.:** Klimax†; Naturapia Menopauza; **S.Afr.:** Bronchicough†; Bronchicum†; **Singapore:** Phytoestrin; **UK:** Gerard House Reumalex; Modern Herbs Rheumatic Pain; St Johnswort Compound; Vegetable Cough Remover; Vegetate; **USA:** Estrocare.

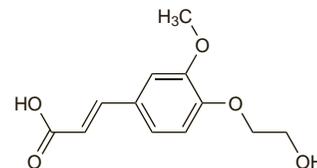
Cinametic Acid (HINN)

Acide Cinamétique; Ácido cinamético; Acidum Cinameticum. 4-(2-Hydroxyethoxy)-3-methoxycinnamic acid.

Цинаметовая Кислота

$C_{12}H_{14}O_5$ = 238.2.

CAS — 35703-32-3.



Profile

Cinametic acid has been used as a choleric.

Preparations

Proprietary Preparations (details are given in Part 3)

Fr.: Transoidif†.

Cinchona Bark

Chinae Cortex; Chinarinde; Chinarinde; Chinovniková kůra; Cinchona; Cinchonae cortex; Cinchonae Succubrae Cortex; Jesuit's Bark; Kinankuori; Kinabark; Peruvian Bark; Quina; Quina Vermelha; Quino, corteza del; Quinquina; Quinquina Rouge; Red Cinchona Bark; Vööröskinafa-kéreg.

Pharmacopoeias. In *Eur.* (see p.vii).

Ph. Eur. 6.2 (Cinchona Bark). The whole or cut, dried bark of *Cinchona pubescens* (*Cinchona succubra*), of *C. calisaya*, of *C. ledgeriana*, or of its varieties or hybrids. It contains a minimum of 6.5% of total alkaloids, of which 30 to 60% are quinine-type alkaloids. It has an intensely bitter, somewhat astringent taste. Protect from light.

Profile

Cinchona contains a number of alkaloids, including two pairs of optical isomers: quinine (p.612) and quinidine, (p.1383) and cinchonine and cinchonidine. Cinchona alkaloids have long been used for their antimalarial activity either singly, as quinine or quinidine, or in mixtures, such as totaquine. Quinidine is also used for its antiarrhythmic properties.

Cinchona bark is used as a bitter and is also employed in herbal remedies.

Homoeopathy. Cinchona bark has been used in homoeopathic medicines under the following names: *Cinchona cortex*; *China*; *China pubescens*; *China rubra*; *Cinchona succubra*; *China officinalis*; *Cinchona officinalis*; *Cinc. of.*

Preparations

Proprietary Preparations (details are given in Part 3)

Ital.: Venustas Antiforfora†.

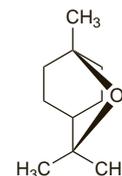
Multi-ingredient: **Arg.:** Bifena; **Austria:** Brady's-Magentropfen; China-Eisenwein; Ferrovin-Chineisenwein; Mariazeller; **Braz.:** Gastrogenol†; **Fr.:** Quinimax; Quintonine; **Ger.:** Amara-Pascoe; Cardibisan†; Gastrol 5†; Hepaticum-Medice H†; Hicoton†; Majocarmim forte†; Majocarmim mite†; **Ital.:** Chinoindina†; **Pol.:** Melissa Klosterfrau; **S.Afr.:** Borstol Cough Remedy; Versterkruppels; **Switz.:** Vin Tonique de Val†.

Cineole

Cajuputol; Cineol; Cineolas; Cinéole; Cineolum; Cyneol; Eucalyptol; Eucalyptol (USAN); Eucalyptolum; Sineoli. 1,8-Epoxy-*p*-menthane; 1,3,3-Trimethyl-2-oxabicyclo[2.2.2]octane.

$C_{10}H_{18}O$ = 154.2.

CAS — 470-82-6.



Description. Cineole is a colourless liquid, with an aromatic camphoraceous odour, obtained from eucalyptus oil, cajuput oil, and other oils.

Pharmacopoeias. In *Eur.* (see p.vii), *US*, and *Viet.*

Ph. Eur. 6.2 (Cineole). A clear colourless liquid. It solidifies at about 0.5°. Practically insoluble in water; miscible with alcohol and with dichloromethane. Store in airtight containers. Protect from light.

USP 31 (Eucalyptol). It is obtained from eucalyptus oil and from other sources. Store in airtight containers.

Profile

Cineole has the actions and uses of eucalyptus oil (p.2301). It has been used in counter-irritant ointments and in dental products. It has also been used in nasal preparations, but oily solutions inhibit ciliary movement and may cause lipid pneumonia. Preparations containing cineole with other volatile substances have been used in the treatment of renal and biliary calculi.