# Ginger Zingiber officinale

The natural healing organisation NHV Theophrastus has selected GINGER as the MEDICINAL PLANT OF THE YEAR 2018.





#### **NHV** Theophrastus

- Organisation Office -

Reichenhainer Straße 175 · 09125 Chemnitz · Germany

Telephon +49 371 666 58 12 · Telefax +49 371 666 58 13

 $www.nhv\text{-}theophrastus.de \cdot \text{orgbuero@nhv-}theophrastus.de$ 

Selected answers from a recent survey that was conducted in my practice, answering the question:

#### Why do you use ginger or why don't you use it?

"When I'm cold, a cup of ginger tea really warms me up again."

"If I feel a cold coming up, I immediately fight it with ginger tea; obviously, freshly cut ginger, not tea bags. It gets rid of the cold or better stops it in its tracks."

"What I like about ginger is its clearness. It clears the head."

"Now that I regularly eat ginger before having lunch, I'm less tired after having food."

"Consuming ginger has improved my bowel movement."

"It's easier for my body to digest food with ginger, I don't feel bloated or gassy anymore."

"The taste alone is great – I love it!"

"If I eat ginger, it instantly makes my nose stuffy and I can't breathe."

"Once on a weekend away, some people from our group drank water from the river, I made ginger tea for them all night long to alleviate their sickness and vomiting. Ginger was the only remedy available in that remote area."

"It's spicy but good."

"I like to use ginger in warm winter soups, but in moderation so that the flavour isn't overpowering."

"When I have a sore throat, I always like to chew a piece of candied ginger. It tastes good and helps."

"I like cooking Asian food. You just have to have ginger for that."

"I think ginger powder with coffee is a brilliant combination."

These days, ginger is literally on everyone's lips — as a spice or purely as a trending plant, candied with or without chocolate, as an ingredient for tea blends, in cookies, biscuits, and gingerbread, in numerous beauty products, as throat lozenges, as ginger ale or ginger beer … The list goes on and on. Ginger is widely valued, and people enjoy it.

Worldwide, ginger root is one of the most popular spices. For 5,000 years, both the Chinese and Indian culture have used ginger as a universal medicinal plant. In Europe, ginger became known as one of the first oriental spices, and it has been traded since around 100 BC. Ginger hasn't only stood the test of time as an ingredient in traditional English gingerbread but, these days, it is also increasingly popular in other countries.

The Chinese and Indian medicine attribute wide-ranging effects to ginger. By now, this has also become a known fact in Europe. In the Middle Ages, the spicy tubers were widely-used and known as the "poor man's pepper" because expensive black pepper was unaffordable for many. In Central Europe, it is now enjoying a revival; while India and China use the most ginger, England and the US show the second most ginger consumption across the world.



# Warmth

"The world needs warmth, kindness, tenderness. You will become tender once you know about the fragility of things and how lonely people are." (1)

It is now winter but not only the season has turned cold. The big spider of indifference and indecision is spinning a web around our world. A cold wind is breezing through the trees and the last leaves are falling off. Ice crystals are sparkling in the delicate sunlight. But the sun is no longer warming our world. The love between people is growing cold. Our brains are working most accurately but our souls are freezing. And we are concealing our despair with simple fun, expensive travel, pampering weekends, or the latest technology. We are spinning around in circles — again and again, faster and faster. Are we maybe forgetting the truly important things in life?

## Tropical heat in the cold of Central Europe

"Only exotic spices love the sun more than rosemary – i.e., ginger or cinnamon. They store the glistening sun from distant countries in the form of essential oils or spicy substances, and that is where their hot nature comes from." (2)

#### Where does ginger come from?

A long journey lies behind every inconspicuous piece of ginger that we buy at the supermarket or greengrocer. Ginger grows in the tropical regions of India, China, and Indonesia, and also in East or West Africa as well as in Mexico, Peru,



and Brazil. Every piece of ginger carries the heat of the tropics and the fire of the volcanos. The ginger family (Zingiberaceae) is considered to be one of the traditional standard spices of Chinese and oriental cuisine. In addition to ginger itself, other members of the ginger family are turmeric (curcuma), galangal, and cardamom. These spices are becoming more popular even in the cold, misty, and damp regions of Middle and Northern Europe. The flavours of the ginger family are very diverse, it can be burning hot and fiery as well as slightly aromatic or bitter. Besides, ginger, turmeric, and galangal are root spices. This means that the essential oils and flavouring substances that the plant contains are primarily gathered in the tuberous rootstocks (rhizomes).

Lesser galangal (Alpinia officinarum) is a ginger plant that originated in China, and like many other herbs, it was imported by the legendary Venetian wanderers who searched for herbs, quartz, and crystals. They carried the ginger plant with them on their way over the Alps. In the Middle Ages, lesser galangal was greatly valued. The Benedictine abbess, Saint Hildegard of Bingen, recommended cooking the aromatic dried root in wine to aid heart conditions and stomach pains or nausea. Moreover, galangal's mood-lifting effects were not only known to Benedictine monks. It was generally referred to as "Schnapps Flower", and amongst the laboratory workers of Thuringia in Germany, it was also a popular ingredient for herbal drinks. /2/ Today, galangal is a must for Thai cooking as it belongs to Thai food like chili to Mexican food. Especially greater galangal

(Alpinia galanga) is the preferred choice for

Thai dishes. What many

people in Europe nowadays do not know is that lesser galangal, in particular, has a longstanding tradition in Asian folk medicine, treating arthrosis, skin conditions, digestive problems, and diabetes — and more and more studies have affirmed these benefits. Also, cancer researchers from India, Japan, England, and Thailand are doing research on medicine made from galangal. Studies have shown that galangal preparations inhibit the occurrence of stomach ulcers and reduce blood sugar levels of type 2 diabetes. Moreover, arthritis pain is alleviated by ginger-galangal preparations. /10/

So, they don't need to be processed and can be added to dishes either freshly cut, dried and crushed, or candied in a sugar solution. /1/

#### **How did ginger come to Europe?**

Today, ginger is grown throughout the tropics. Very early, Arabian traders introduced ginger to Ancient Europe. The Romans imported ginger from port cities in Egypt and the Middle East, which were linked with Indian markets. In addition to the various types of pepper, ginger was the most traded and most popular spice. Later on, Benedictine monks crossed the Alps and brought ginger with them. In the Middle Ages, ginger was eventually well-known, wanted, and widespread. Saint Hildegard valued the spicy ginger root but appreciated the galangal species of the ginger family even more.

The knowledge about ginger spread amongst practitioners of alternative medicine living in monasteries. The Benedictine monks even established a type of clinic in their monasteries, where they provided free treatment and medical care for families of destitute farmers living in the villages near the monasteries. The monks grew medicinal herbs in the monasterial gardens or bought the herbs from spice traders for the monasterial pharmacy. And so the priestly healers could make their potions using camomile, sage, pepper, cinnamon, ginger, wormwood, valerian, honey, or fresh fruit. /2/

Despite its popularity, the mystical origin of ginger remained unknown to the people of Central Europe. India only became known in the 13th century when the Venetian merchant Marco Polo travelled to the Far East as well as to Southeast



Asia and described the ginger plant along with its preparation in his travel diary. And that is how ginger and sugar cane were brought to the New World that was America as early as at the beginning of the 16th century. Needless to say, ginger root was featured in all major books on medicinal plants in the modern times – even though some passages were more than likely taken and copied from other books on the same plants. Back then, ginger was known under many different names; for instance, the Benedictine monks called it "Zeugeborn", for Saint Hildegard it was "Ingeber", Paracelsus referred to it as "zingiberis rhizoma", and later on, the vernacular name was "Imber".

#### Paracelsus and ginger

Of course, also the famous physician and natural scientist Bombastus von Hohenheim, known as Paracelsus, valued the ginger plant for its warming and detoxifying effects. Even though he believed that every country developed its own diseases, remedies, and physicians, he still conducted research on exotic plants like myrrh, colocynth, cardamom, and ginger. He associated ginger with the element of "air" (being warm and humid) and found its effects to be similar to those of onions. In contrast to homegrown plants, Paracelsus particularly appreciated the "warming nature" of the tropical exotic plants and the way they stored solar energy. He used their energy and warmth to "maintain a warm vivacity". This means that he applied them to treat illnesses that were caused by issues with digestive organs, shivers, or from poor health. In order to treat abdominal rigidity caused by either a slower metabolism or poor organ function, Paracelsus used exotic spices in combination with homegrown universal medicinal plants like garden angelica or caraway. For stomach pains he preferred using dried galangal over ginger as it was said to be mild despite its warming effects;

however, ginger root was still an integral part of many reviving recipes and bitter elixirs, especially for afflictions of old age. /3/

#### Ginger and its warming effects

Even today, we use ginger for its warming effects. After all, ginger tea with honey stops a cold in its tracks, and a ginger compress on the lower back warms and relaxes the kidneys and muscles and can treat inflammation or lower back pain. /4/ The health benefits of ginger derive from its antibacterial and anti-inflammatory properties.

Candied ginger proves to be a perfect quick snack and ginger tea can easily be made at home. Simply pour boiling water over 2–3 slices of fresh ginger and add fresh lemon juice and honey. Ginger slices are usually slightly spicy but can of course also be eaten raw. Ginger is similar to apples in so far as that the most important nutrients reside directly under the peel. However, depending on the ginger's origin and chemical exposure, it might be best to peel it. Mulled wine with ginger also helps to get rid of a cold, is really warming, and boosts the immune system. For mulled wine, simply add honey and the juice of half a lemon to 5 slices of ginger but then also add a good dash of red wine and a bit of water, bring the mixture to the boil. In order to restore warmth when treating shivering or frostbite, mulled wine with ginger should be sipped. It is not suitable to treat high fevers. /5/ Ginger compresses are recommended as an external application for muscle tension as well as arthrosis pains, chronic bronchitis, sinusitis, or even depression. Information on preparing ginger compresses can be found in the table on the following page.

#### Who can benefit from long-time treatments with ginger?

Intensive or long-time treatments with ginger are only suitable for those who suffer from lethargy or poor digestive organs as well as those who often have cold hands or feet. This also makes ginger a classic plant for women during the cold winter months. People who feel warm and full of energy most of the time or have high blood pressure don't usually need any heat stimulation. However, high blood pressure is generally not a contraindication to taking ginger. Due to its regulating effects, ginger can potentially be used for both low and high blood pressure. The significant factor is, whether the patient is suffering from poor or weak digestion as well as, for instance, cold feet. In such cases, ginger treatments may move the energy from the patient's head to his or her abdominal organs and stabilise the patient's blood pressure.

#### The following table shows possible applications of ginger:

	_		p.:	p 1	
	Tea	Tincture/oil	Pieces	Powder	Preparations
Benefits/ disadvanta- ges	easy to prepare and not too spicy, can be combined with other plants	easy to make, perfect for on the go, long shelf life	simple to use, but often spicy	can be used as a spice, short shelf life as essential oils evaporate, of- ten difficult to use	standardised production, great for on the go
Preparation	Pour boiling water over 1 tea bag or 2 – 5 slices of ginger, let the tea brew for 10 min, add honey and lemon	Tincture: cut roots into thin slices (20 g), soak for about 10 days in alcohol of at least 40 % (100 ml)  Oil: mix thin slices of ginger (100 g) with olive oil (500 ml), leave in an airtight container for 2 weeks, shake daily, strain before applying		on a deep plate, mix the powder (10 g – from the pharmacy) and lightly warm jojoba oil (or water if you can't get hold of the oil) to a paste, press between folded linen	- Zingiber officinale (= Dr Zimpel's spagyric preparation of ginger) from Phylak Sachsen - organic ginger juice (= pressed juice from fresh plants) from health and beauty shops - Ginger capsules from Dr Wolz (= ginger powder) - Hylosan-Essenz from Bombastus-Werke AG (= muscle tonic cream)
Internal application	to treat colds, intoxication, nau- sea, to invigorate the stomach and small intestine, to lift your mood	Tincture: To treat digestive diseases or sore throats, to protect your voice	to aid digestion, to treat nausea and vomiting	see column for tea, capsules to relieve arthrosis pains	to strengthen the body and mental health, relieves pain and has anti-inflam- matory effects, aids digestion, boosts your immu- ne system
External application	as a mouthwash to increase the production of saliva	Oil: to be rubbed in or to be used with bandages/com- presses to treat in- flammation and to relieve pain	for headaches or sore muscles: rub on/cover temples, forehead, or neck with slices of ginger	Compresses: cover painful area with the pressed mixture of powder and oil/water, hold it in place with a gauze or bandage, cover with a woollen clo- th, let it rest for 10–20 min. Please note: Paste must be applied directly ont othe skin. It's crucial to rest af- terwards.	Hylosan-Essenz: rub into sore muscles, repeat every 3 hours

/6/, /8/, /11/, /12/



"To warm the world, you need a fire in your heart." (3)

How can we overcome our own lethargy, our own superficiality? When we are pulled in all directions, how do we find our way back to the significant things in life? What is important to us? What motivates us? Research in brain function discovered long ago that real learning is only effective if it is interlinked with positive emotions. Joy and enthusiasm are the easiest ways to find motivation for our actions. But how do we become more joyful and enthusiastic? It can sometimes help to take a step back and quietly reflect. What do I want in life? Have I got a goal in life? Who or what is important to me? What makes me strong? Who or what gives my life a purpose? What motivates me? So many questions and there is no one-size-fits-all answer to them. But finding a purpose and a goal in life also means finding joy in our activities. Our lives are easier with enthusiasm that rekindles our fire. Our blood flows more quickly. Our hearts beat stronger. Our bodies are cleansed. We breathe more freely. If we then also meet like-minded people, we will be able to help each other and pursue a common goal together.

## Spicy roots to ease aches and pains

"It has already been mentioned that ginger can be remarkably relieving for lower back pain (lumbago) and other back pain that is caused by muscle tension." (4)

#### Application of ginger

Ginger is used for three main purposes:

- ① Ginger has vitalising effects on the metabolism, especially on the digestive function. It also invigorates the liver.
- ② Ginger has antibacterial and antiviral properties as well as warming effects to fight colds and infections. It boosts the immune system. It has anti-inflammatory properties and alleviates both nausea and pain.
- ③ Ginger alleviates poor blood circulation and mental stagnation, it also resolves a lack of vitality that comes with low blood pressure and tendencies to feeling cold.



#### Aiding digestion

The main effect of ginger lies in its digestive properties. Fresh ginger enables food to pass through the stomach quicker and prevents heartburn, bloating, gas, or eructation. For stomach ulcers and bowel inflammation, ginger tea made from fresh roots protects the mucous membranes and eases the muscles, it enhances the salivary secretion, and purifies the digestive tract. Daily ginger indulgences may increase your vitality.

#### Nausea

Furthermore, ginger prevents nausea and vomiting. It can be used fresh as teas or tinctures to treat travel sickness in particular but also to ease morning sickness during pregnancy as well as after operations, alongside chemotherapy, or as an antidote to potentially poisonous food. According to the monographs of ESCOP and WHO, ginger is a recommended remedy for indigestion (dyspepsia) and can prevent sickness and vomiting; yet, morning sickness is listed as a contraindication. However, many midwives confirmed that pregnant women have had positive experiences with drinking mellow ginger tea. Nevertheless, pregnant women should take care with spices that are rich in camphor as they can induce labour, i.e. ginger, cardamom, cloves, or cinnamon. As always, the effects vary from person to person. If a pregnant woman finds the smell of ginger appetising and consumes it in moderation, it will surely do her good.

#### **Pain**

The pain-relieving effect of ginger is similar to the effect of the painkiller acetyl-salicylic acid (ASA, i.e. used in "aspirin"). Gingerols and shogaols inhibit cycloxygenases and lipoxygenases, which are two enzymes that disrupt the endogenous synthesis of prostaglandins and leukotrienes, which both cause pain. Thus, the transmission of pain is interrupted, e.g. arthrosis pain going from the knee to the spinal cord. Additionally, gingerols and shogaols have anti-inflammatory effects. Moreover, the spicy substance prevents the platelets from concentrating. This improves the blood flow, dilates the blood vessels, and prevents thromboses. Ginger oil or ointments should be applied to painful areas or organs multiple times a day. Depending on skin tolerance, ginger slices can also be applied directly to the skin. They increase the blood circulation to the skin and may relieve pain. Putting ginger slices on the forehead and securing them with a headband may even alleviate headaches. Regular intake of ginger powder may reduce chronic pain or reduce the number of taken painkillers.

The ginger tincture is particularly recommended to singers as it protects the voice from overuse. When gargled, it also relieves laryngitis, sore throats, or angina.

#### **Studies**

Research attributes most of the effects of ginger to its spicy substances, which has also been proven by numerous studies. They confirm its pain-relieving, anti-inflammatory, and diaphoretic effects. Ginger increases the secretion of saliva and gastric acid as well as bile, eases nausea, has stimulating effects on heart, kidneys, and colon, and it also lowers the LDL cholesterol level by quickening the transformation of those fatty acids into bile acids. Other studies suggest that the substances contained in ginger have anti-carcinogenic effects. /7/, /8/, /9/, /10/

For a few years, turmeric (curcuma longa), a flowering plant of the ginger family, has received great attention due to its anti-cancer effects.

Turmeric is a central ingredient of Indian cuisine and traditional medicine. In particular, it has been used for ritual purposes. It cleanses the blood, stimulates the circulatory system, treats swimmer's ear, relieves liver and heart problems, and invigorates digestive organs and kidneys, when mixed to a paste with coconut oil it nourishes the skin and alleviates pruritus. Moreover, Buddhist monks use turmeric to dye their robes for major ceremonies. Curcumin, the main active ingredient in turmeric, is a natural anti-inflammatory and its effects are comparable with those of cortisone or aspirin. Ginger and turmeric have similar properties. They are like brother and sister, yin and yang, or two sides of the same coin. Ginger rather represents clarity, protection, structure, and logic, while turmeric is like a breath of fresh air and symbolises intuition, purification, and regulation. /12/

There are over 1,000 studies that have confirmed the anti-carcinogenic effects of curcumin. It in-

hibits the development and spread of tumour cells, destroys cancer cells, and obstructs the growths of blood vessels that nourish the tumour cells. Furthermore, turmeric has antibacterial, antiviral, and antifungal effects. It improves the immune system, protects the liver, boosts the secretion of gastric acid, has antioxidative effects, and thins the blood. Thus, positive effects have been observed in Alzheimer's and Parkinson's diseases, type 2 diabetes, rheumatism and arthroses as well as in the prevention of heart attacks. As a preventive treatment, adding a teaspoon of turmeric as a spice to meals every day is recommended. The combination of curcumin and the piperine of black pepper considerably improves the organism's efficiency to take in curcumin. /10/. /12/. /13/

"The seed will never see the spike but believes in it. The journey of the seed represents every human being on their way to fruitfulness and maturity." (5)

Our generation no longer has great ideals that fill lives. Which one of us still has an aim, an ideal, a mission that fills their very being and inspires them? Without ideals or visions, our focus remains stuck on material possessions. We build molehills and regret not seeing the sun. Dissatisfaction rises, and ennui takes root. The grain of seed fights its way from the dark earth to the light, overcoming many obstacles like breaking through the asphalt. Great love and passion release great strengths in us. A wish turns into willingness; we want to reach our aim and our inspiring visions despite all obstacles. That's what makes us feel happy and alive! That's our daily source of energy that does not protect us from darkness but helps us to see the light.

### When the eight shines within us

"The plant also has psychotropic effects. Taking ginger over a long period of time may improve depressive distress and listlessness as well as inclinations towards panic attacks or diffuse anxiety." (6)

#### The plant

Ginger (Zingiber officinale) belongs to the ginger family Zingiberaceae and is also referred to as galangal. This family includes 24 different species with around 300 tropical types. There are approximately 20 different types of ginger.

Ginger reproduces vegetatively by spreading its rhizome. The persevering rhizome grows horizontally beneath the soil and only branches out on one level resembling antlers. When ginger is planted, it will sprout false stems within 4-5 weeks. Those pseudo stems are actual leaves that can grow up to 1.5 m in height. The leaves are rolled up and function like stalks. They grow in alternate positions and lance-shapes (lanceolate) from the stalks, resembling smaller tulip

leaves. Ginger is a reed-like plant that almost looks like strong tall grass. Once the leaves have developed, a greenish flower spike will start to grow. The spike is oval with its outer petals being imbricated. In the leaf axils grow individual yellowish or reddish petals with their long stamens and outer petals resembling small orchids. There are virtually neither crops nor seeds growing. /1/









Homegrown: the plant won't reach the blooming phase, vet the rootstock (rhizome) continues to grow and can be harvested by the end of the brighter colours.

The cultivation of ginger in Africa or Asia can be compared to the European cultivation of potatoes. People grow ginger in the gardens of their houses to use it in their kitchens. Remainders of the rootstock, with at least one tuber left, will be re-planted. This can also be done in a plant pot. Ginger loves moist and warm surroundings. Once the rootstock has grown in size, it can be cut and re-planted. That way, we always have fresh ginger at our fingertips that is less spicy than ginger from tropical regions.

#### **Easing tension**

If a plant's healing power is pooled in its roots, it has particularly strong effects on the human nervous system. Ginger primarily affects the nerves involved in the metabolic system. Thus, ginger is suitable for people suffering from circulatory disturbances and low blood pressure as well as people who often have cold feet. It year. The new roots are distinguishable by their warms the body and alleviates poor blood circulation. Ginger stimulates the

metabolism and the liver, also called the organ of vitality. It lifts our spirits. Like different kinds of pepper, cloves, or nutmeg, the stored solar energy awards ginger with mood-lifting effects. Kidney compresses containing ginger powder can alleviate depressive distress. We recommend that a trusted person helps to place the compresses. The ginger powder will slowly but surely evolve its warming effects and the skin underneath the applied area will start tingling. Additionally, ginger tea will enhance sweat production and have liberating effects.

#### Remedies from the kitchen

At the same time, if we also consume solar energy through foods – be it dishes containing nutmeg, clove cookies, or ginger in the form of tea, sweet and sour pickled, candied and covered in chocolate, ..., – then things will lighten up again. Fresh ginger aids the digestion of meat. It is usually added at the end of cooking to keep its spiciness. If it's cooked for longer, it will become mild with a warm, aromatic flavour. When heated, dried ginger powder unfolds its spices quicker than ginger pieces and should only be used sparingly like chilli. /14/, /15/

#### **Shopping tips**

When buying ginger, make sure to look for smooth and shiny skin without creases. A whole piece of ginger stored cold in the vegetable drawer of the fridge can last for 6-8 weeks, stored in the freezer it will practically never go off. Fresh ginger is suitable for any kind of savoury dishes and can be added to the cooking pot as pieces, grated, or pressed with a garlic press. Some essentials for your medicine cabinet are fresh slices of ginger to chew, make teas, or put on painful areas. Ginger powder is perfect for sweet dishes and baking as it adds a lovely hint of spiciness.





dried ginger strips at the weekly market in Münster, Germany



Ginger tubers, garlic, and tomatoes at the market in Ghana



Ingredients for ginger wine: red wine, black pepper, lemon, turmeric, ginger and raisins



Pear and ginger cake with cream

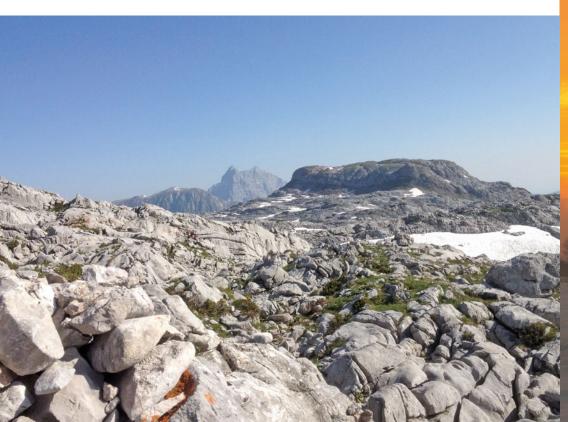


Sylt oysters with apple ginger and lemon slices

# Warmth - Fire - Light

Ginger invigorates – it brings power, energy, and verve! It frees us from our lethargy and stagnation. Let us be courageous! Let us boost our brain power, free our hearts from restrictive iron chains, and bestir ourselves to use our willpower! Seek for visions, ideas, and moral values! Let us set off joyously and enthusiastically to change ourselves and our world.

"We need a new spring, a spring of the spirits, a spring of the hearts. ...Prosperity has made us jaded and numbed. We need to get up. We need to rise with new spirits and hearts. Not with a medicine cabinet filled with pills, powders, and tablets, but with those hidden powers that have remained dormant in the depths of every person's heart. ...Awake from the hibernation of your weary existence, awake to a new spring. Now get up! God has written the law of resurrection on every leaf of every tree. And it's doubtlessly also written on your needy human heart." (7)





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