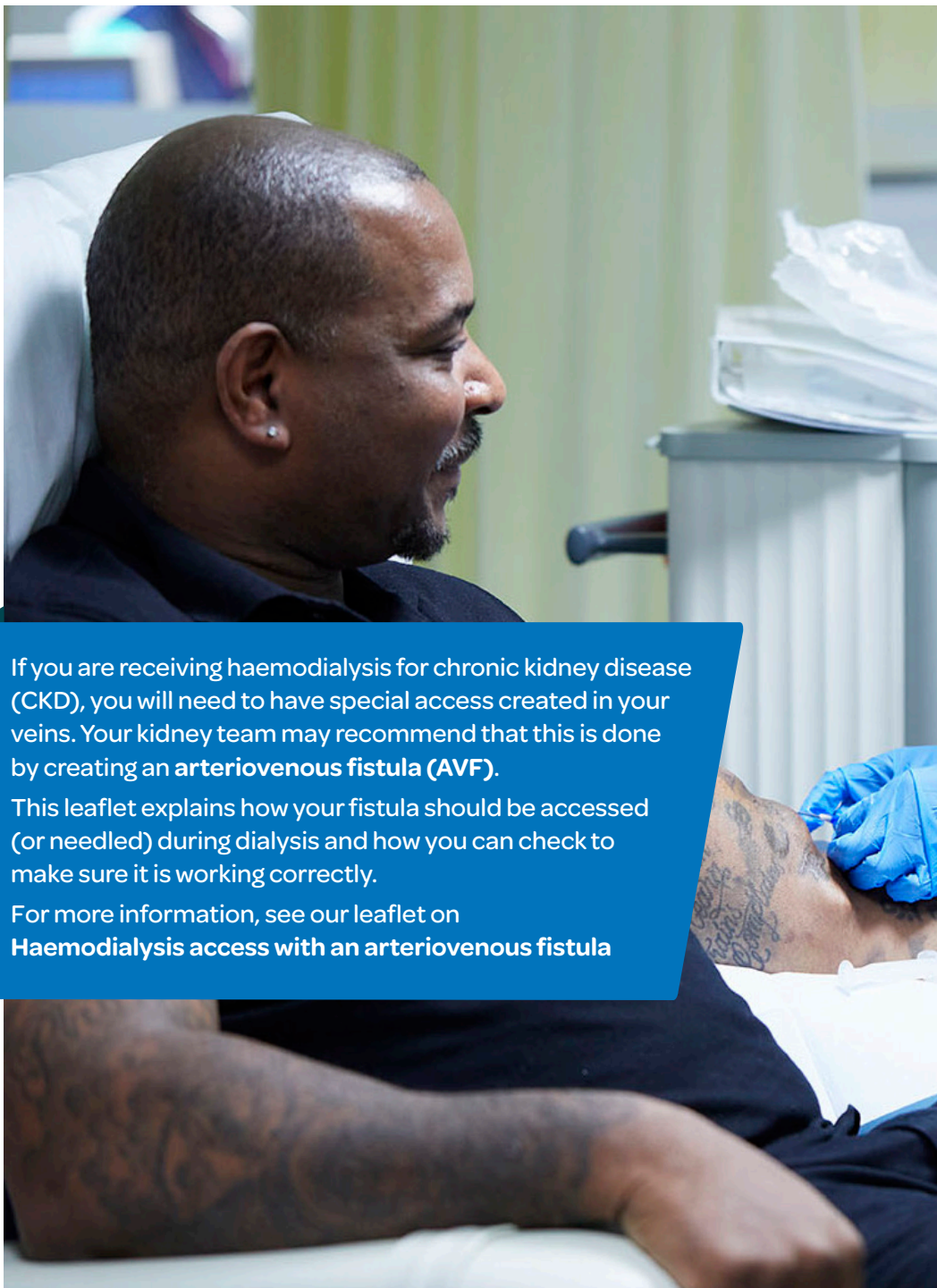


# How to check your fistula and advice on needling

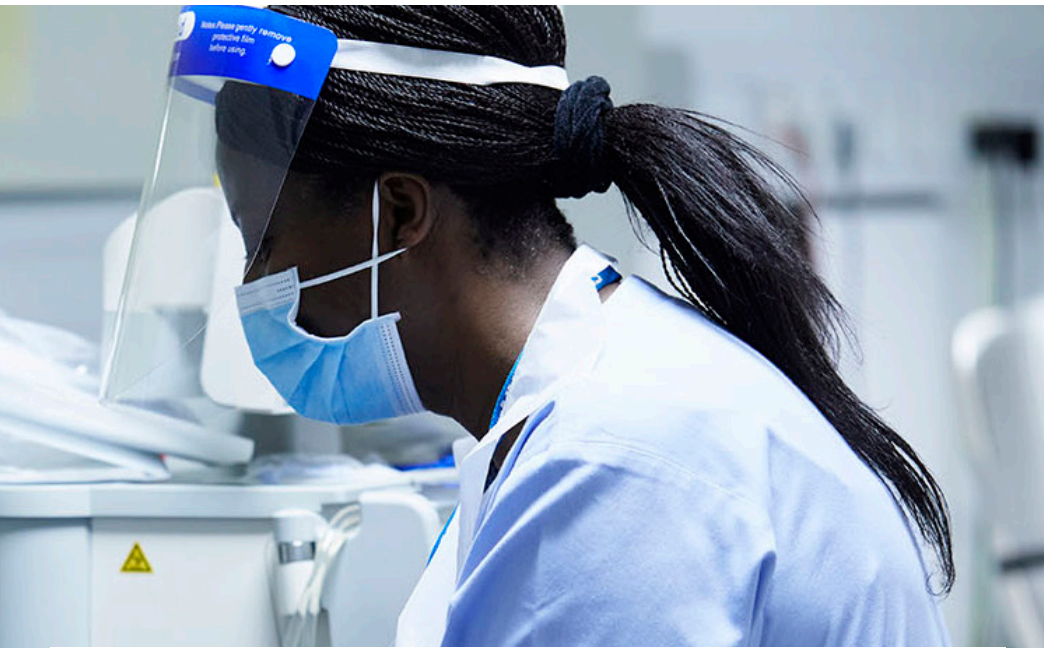




If you are receiving haemodialysis for chronic kidney disease (CKD), you will need to have special access created in your veins. Your kidney team may recommend that this is done by creating an **arteriovenous fistula (AVF)**.

This leaflet explains how your fistula should be accessed (or needed) during dialysis and how you can check to make sure it is working correctly.

For more information, see our leaflet on **Haemodialysis access with an arteriovenous fistula**



## What is a fistula?

A fistula is a special connection in your arm. It is made by a small surgical procedure which joins two types of blood vessels: an **artery** (which carries blood from the heart round the body) and a **vein** (which carries blood back to the heart). This makes one large, stronger blood vessel.

## How is the fistula used?

When you have haemodialysis, a member of your kidney team will insert two needles into your fistula. This is known as **needling** or accessing your fistula. One needle takes the blood out of your body and the other returns the filtered blood. Smaller needles may be used at first as you get used to the procedure. The needles are removed when your dialysis session has finished.

You may feel a stinging sensation for a few seconds as the needle goes in, but it shouldn't be painful. Your kidney team will discuss the use of local anaesthetic before needling. There may be some bruising at first, but this usually stops as the fistula is used more frequently.

## How can I check my fistula?

Your fistula is vital for dialysis. It is therefore important that you **check your fistula every day to make sure that it is working**. Talk to your kidney team about the best ways to monitor your fistula at home and on the unit. Tell your kidney team if you have any concerns.

### Look, feel, listen

You can check your fistula by **looking at previous needling sites** for any changes in your skin. This might include:

- scabs
- redness
- broken areas
- sore patches
- new lumps or swellings
- oozing/discharge





**Feeling with the palm of your hand.** You should be able to feel a 'buzzing' sensation/vibration throughout your fistula, reducing as it moves away from the surgical site. Your kidney team will teach you how to feel this. You may also want to teach a family member or friend so they can check if it changes.

Check for any areas of your fistula vein that you think have changed, such as:

- new lumps or swellings
- hard areas
- areas where the vein seems to disappear
- signs of any enlarged veins nearby

Talk to your kidney team straight away if you feel any changes as it could mean that there is a problem with your dialysis access.

## **Steal syndrome**

This occurs when the fistula changes ("steals") the normal flow of blood through your arteries from the smaller vessels in your hand.

This can result in cold, numb fingers which may be painful, and reduced strength in the hand.

**Contact your kidney team if you notice any of these symptoms.**



**Listening with a stethoscope** or by holding your fistula arm up to your ear.

You should be able to hear a 'whooshing' sound (known as a bruit) at either end and all along the length of the fistula vein.

## How might my fistula be needled?

Your fistula may be needled by your kidney team, or you may do it yourself, if you have home haemodialysis or are taking part in shared care.

There are three different needling techniques:

- rope ladder
- button hole
- area puncture

### Rope ladder

Your needles are inserted in a different place each time, following a planned progression, using the full length of the fistula, returning to the bottom once you've reached the top needling point. The needles are inserted in a ladder pattern up your arm.



Rope ladder  
technique



### Buttonhole technique

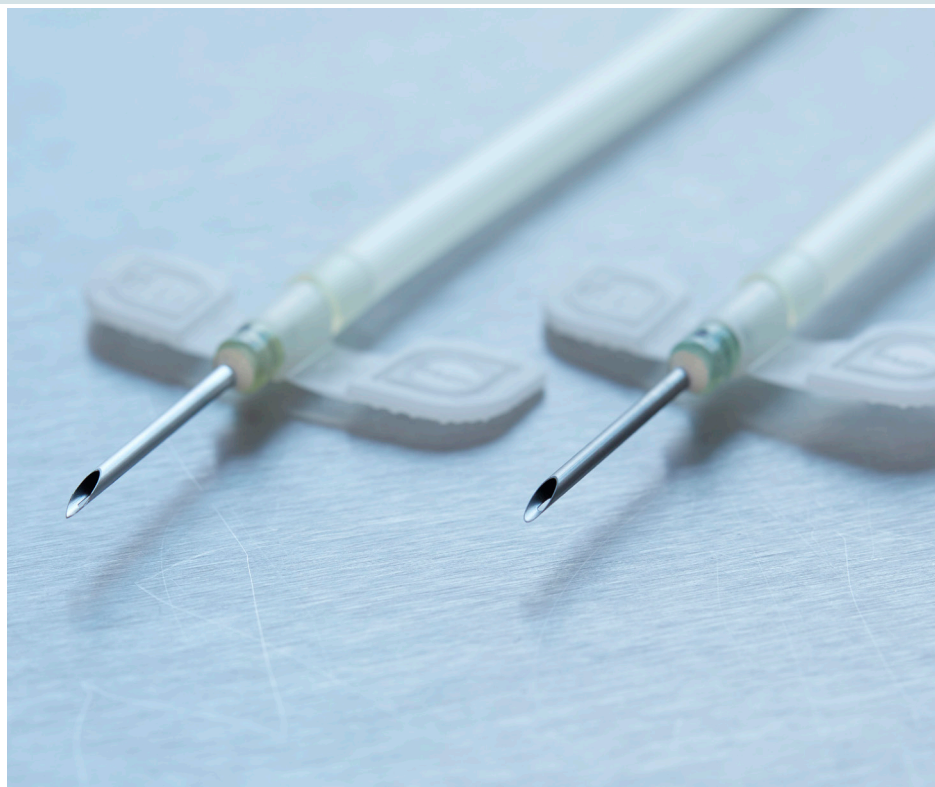
#### **Buttonhole**

Your needles are inserted in exactly the same place each time. A rounded needle is used, causing no trauma to the vein.

Your kidney team will make sure that the same needling angle and depth are used each time.

The buttonhole method will not be suitable for everyone.





The UK Kidney Association recommends the preceding needling techniques to make your fistula last as long as possible and prevent the over-development (bulging) of the needling sites.

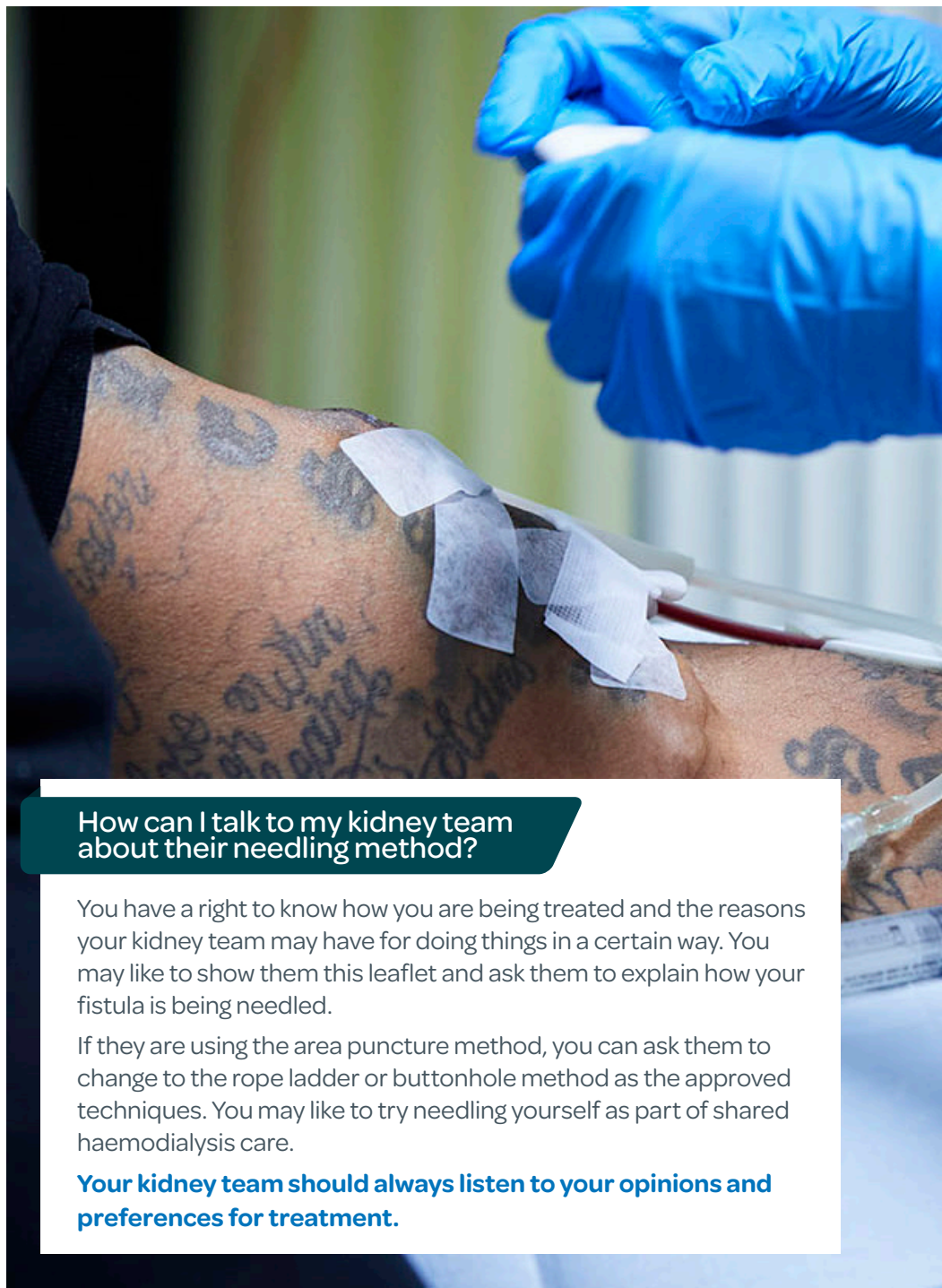
### **Area puncture**

Your needles are inserted in the same area each time.

**While this is not usually recommended, in some cases area puncture is the only needling option. Your kidney team will discuss this with you to make the best possible recommendation.**

Possible complications include:

- Risk of developing large lumps on the fistula.
- Skin becoming thin which may cause bleeding and reduce needling site options

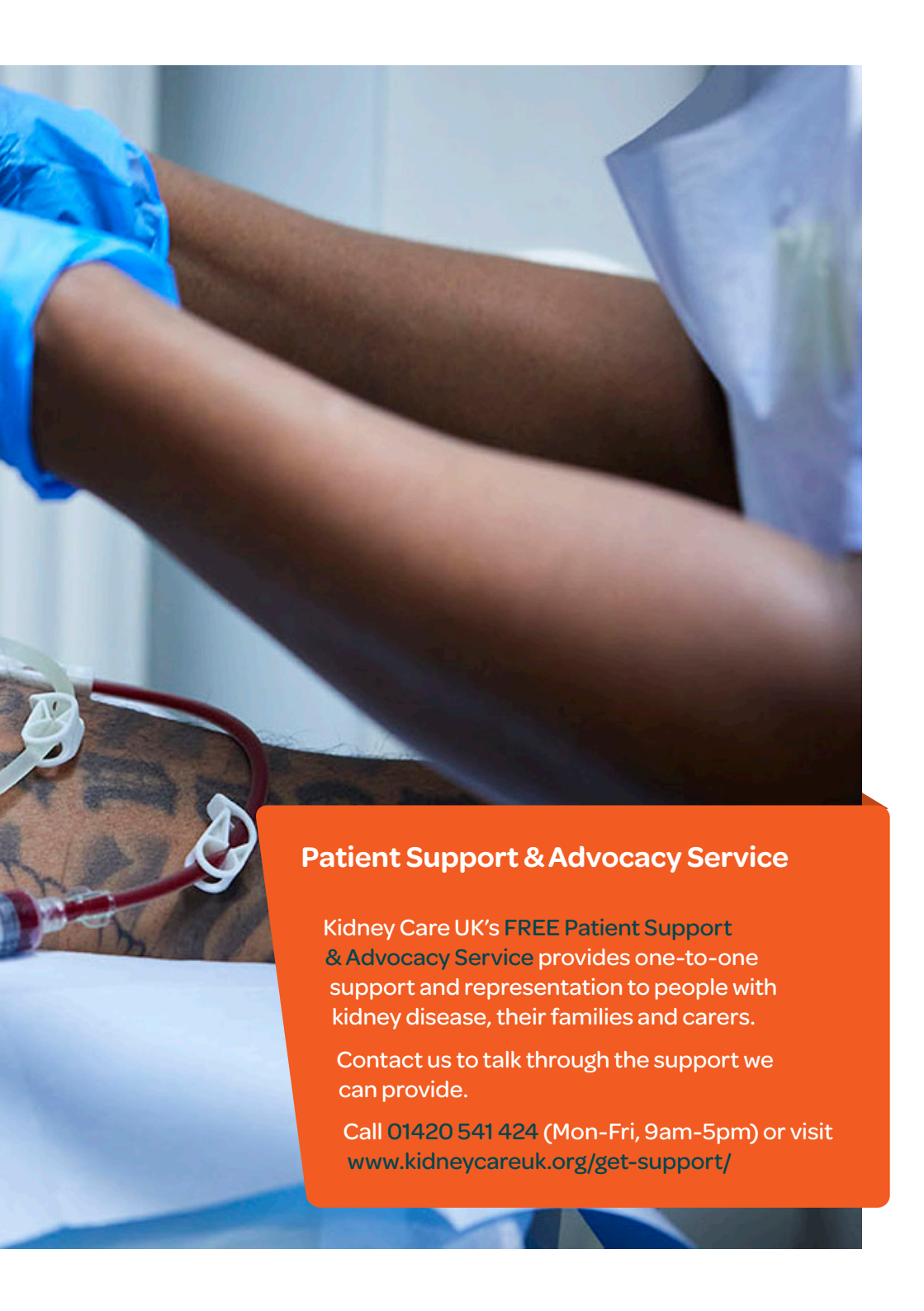


## How can I talk to my kidney team about their needling method?

You have a right to know how you are being treated and the reasons your kidney team may have for doing things in a certain way. You may like to show them this leaflet and ask them to explain how your fistula is being needled.

If they are using the area puncture method, you can ask them to change to the rope ladder or buttonhole method as the approved techniques. You may like to try needling yourself as part of shared haemodialysis care.

**Your kidney team should always listen to your opinions and preferences for treatment.**



## Patient Support & Advocacy Service

Kidney Care UK's **FREE Patient Support & Advocacy Service** provides one-to-one support and representation to people with kidney disease, their families and carers.

Contact us to talk through the support we can provide.

Call 01420 541 424 (Mon-Fri, 9am-5pm) or visit [www.kidneycareuk.org/get-support/](http://www.kidneycareuk.org/get-support/)




## Where can I find more information?

- Kidney Care UK: information about haemodialysis treatment  
[www.kidneycareuk.org/kidney-disease-information/treatments/haemodialysis-hd/](http://www.kidneycareuk.org/kidney-disease-information/treatments/haemodialysis-hd/)
- NHS choices: dialysis – [www.nhs.uk/conditions/dialysis](http://www.nhs.uk/conditions/dialysis)
- Save Your Vein is an awareness campaign to educate and empower kidney patients about the importance of vein preservation – [saveyourvein.org](http://saveyourvein.org)



## Contact us



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