



The most important thing about abrasions is to keep them from scabbing. Scabs made sense from an evolutionary point of view since they limit protein and fluid losses which is important if these things are difficult to come by. Since modern man can stop at McDonald's and fill all those needs, scabs no longer work so well for us. When a wound heals it is in part because the skin cells slide in to cover the opening. If there is a scab then this is inhibited and wound healing is delayed. Dressing materials also promote wound healing by increasing the temperature locally at the wound site, something that has been experimentally demonstrated to speed wound healing.

I use Tegaderm. There are many other brands of semi-permeable membrane dressings and they all work more or less as well. The way I use it is to first make sure that the wound is clean and dry. This means that the bleeding needs to have stopped. Usually I will clean the abrasion first with saline and a surgical scrub brush and then cover it with Vaseline gauze and an absorbent dressing. This is what the OBRA first aid providers will do at the bike race. At some point several hours to a day later I will wash the wound again with soap and saline (or just water) and then apply the semi-permeable dressing. First I paint around the wound with Mastisol or tincture of benzoine. These are products that make the skin sticky so the Tegaderm (or whatever brand you use) will stick to the skin around the wound better. Be careful not to get this stuff in the actual abrasion because it will sting like mad. I then take a Q-tip and some greasy stuff, like Vaseline, and draw a line of grease from the middle of the abrasion to the most dependant part. This line of grease will keep the Tegaderm from sticking at that point and will allow the fluid that comes out of the wound to drain out. The Tegaderm then goes over the abrasion. If the abrasion is too big to be covered by one piece you can overlap the pieces to get it covered. It is important that the Tegaderm extends out over about an inch of intact skin. Now cover at least the opening of the drain created by the grease with an absorbent dressing to catch the goo that will come out of the wound. If you place the dressing this way you can usually leave the Tegaderm on for 4-7 days. Obviously the absorbent dressing should be changed when soiled but the Tegaderm stays in place and you can exercise and shower with it in place. Remove the Tegaderm if you start to see red spots around the wound. The red spots are infection focuses at the hair follicles. Usually this will clear up if the Tegaderm is left off for a day or so.

There are lots of other ways that you can treat abrasions but this is the least fuss way and it will heal the fastest. Unfortunately the semi-permeable membrane dressings like Tegaderm are hard to find because they are not marketed to the general public. You can buy them online at places like WoundCareShop.com or you can try pharmacies or medical supply places. I have been told that Walgreens pharmacies carry it. Beaverton Pharmacy (Canyon & Hall) carries it and sells it in "singles" (they also carry tincture of benzoine). It should be available at places that sell catheter or stoma care products. It is likely that any pharmacy or medical supply house could order some for you, although they may require a minimum purchase. Personally, I just buy the stuff in 100 count boxes. It takes many years to go through that much but it is not like the stuff is going to go bad or I am going to stop scrapping myself up. It also works well to put on the kids' skinned up knees and such.

There are some products that combine the semi-permeable membrane with an absorbent gel. These are actually a bit better than the semi-permeable membrane products but I think they are not quite so user friendly and they are considerably more expensive. Duoderm is an example of such a product. These work very well for "drier" wounds, like bedsores or chronic leg ulcers. My experience is that wetter wounds like abrasions will fill the gel so rapidly that the dressing will need to be changed daily, negating the no fuss aspect of the semi-permeables and upping the cost quite a bit.

Conventional dressings work pretty well too but they require daily dressing changes. Since they can't be worn while bathing often this means more frequent than daily dressing changes, particularly for the active athlete. They also do not relieve discomfort as well as the semi-permeables. To use conventional dressings appropriately they need to be layered. The first layer needs to be a fine mesh "non-adherent" type material, like Adaptic, Vaseline Gauze or Xeroform. "Non-adherent" is actually a misnomer since the goal of this layer is to allow the stuff that comes out of the wound to go through this layer and then be removed with the dressing change. A true non-adherent dressing, e.g. Telfa or Band-Aid, does not work well since all it does is absorb the liquid from the wound but is still allows

scabbed material to form over the wound. In addition, the plastics in these type dressings often cause the wound margins to macerate, i.e. get full of water and turn white, which will inhibit wound healing. The cheapest way to do the non-adherent layer is to take an old bed sheet, cut it in the appropriate size, smear it with Vaseline and then apply to the wound. The bed sheet material has about the right mesh size. The non-adherent material should be applied only 1 layer thick. Over the top of the non-adherent layer you put some absorbent gauze pads and then hold the whole thin in place with some elastic dressing retainer, like the fishnet material that the OBRA first aid people use, or tape and/or Ace bandages.

On areas that it is difficult to cover with a dressing, like the face, it works best to just clean the wound frequently, 3-4 times per day, and then keep a good layer of something greasy like Vaseline on the wound. If you do this the wound fluids will not be able to congeal together to form a scab and the wound will heal quicker.

- Mike Murray

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