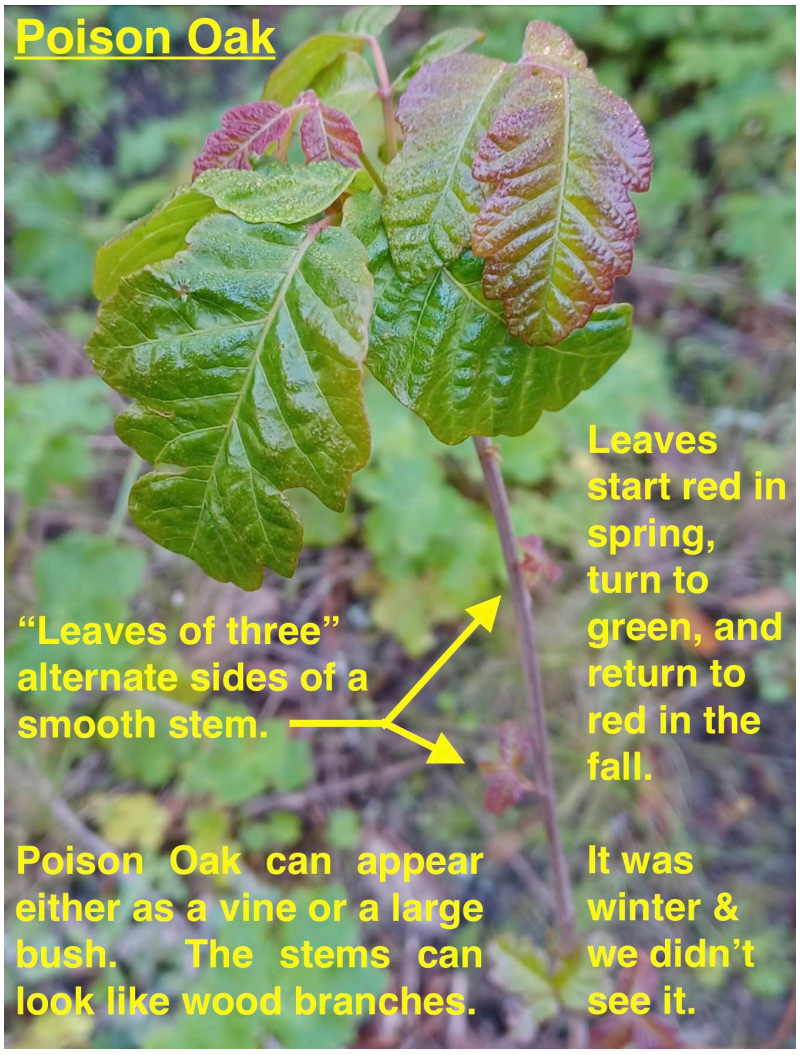
Steam Trains & Poison Oak

By Dr. Benjamin Lerman, M.D., & Bruce Anderson

As members should be aware, especially following the L.A. fires, the club has been at work cleaning up green waste around the track. Many members have come out to help fill two 15 cubic yard debris boxes, each the equivalent of about 30 household green waste bins. Following one of the workdays, I (Bruce) felt a tingling on my skin while driving home. Oh oh…, poison oak? As soon as the garage door was closed I took off my clothing, put them into the washing machine, and headed towards the shower. What I did was what I had learned decades ago as a Boy Scout, cool water to keep my pores closed and lots of soap! In following days I had a bit of a rash but not too bad. Unfortunately a couple of others had a bit more to deal with. Knowing one of our members and builder of a Conner Beam locomotive was also medical doctor, I sent Ben an eMail and asked him some questions. Ben graciously responded:

Bruce: Could you please help me with a possible CallBoy story on Poison Oak?
Ben: Having suffered many an awful case of poison oak, I've sadly learned a lot about not just professionally but personally! See my comments below, which are just my own opinions on the topic. I'm also including patient hand-out that was prepared by a reputable online medical textbook publisher (UpToDate).

First off, identify and avoid if at all possible. Two links to help with this are: California's Poison Control-Poison Oak and How To Identify Poison Oak. (**Bruce:** In this case it was late winter and we didn't see it. The photo below is from the area about three weeks later in early spring.)



An ounce of prevention is worth a pound of cure… Wear long sleeves, long pants, gloves. Don't touch your face (or any other sensitive part of your anatomy!). Treat everything as contaminated — put it all straight into the laundry and then give yourself a full body washing. Don't wait for a rash to appear — assume you have been exposed and wash immediately. Tecnu is one detergent that is marketed specifically for this purpose, but at least one study found that Dawn dish soap worked just as well. The less time that elapses between exposure and washing, the less chance of rash.

Shoes are the trickiest. If yours can go in the laundry machine, that's probably best, otherwise remove the laces and run them through the laundry and wipe the shoes down with Tecnu or Dawn. Be sure to wear disposable gloves when doing this.

Bruce: How the heck does it move around?
Ben: Two factors: first, if you haven't removed all the oil, you may be transferring oil from one part of your body to the next. Second, even if you have removed all the oil, different parts of your body may have absorbed different amounts during the initial exposure, or be more sensitive. So places that got a big dose and/or are more sensitive will break out first, places that got a smaller exposure or are less sensitive break out later.

Bruce: Is Poison Oak contagious?
Ben: In a sense, yes. The rash is caused by the rhus oil in the plant (also found in poison ivy and other plants). If you have failed to fully remove the oil from your skin and you then touch someone else, you can transfer the oil to them. (My wife has had some choice words for me about this!)

Bruce: Using over-the-counter medications vs. calling the doctor?
Ben: If you have broken out in a rash it is unlikely to respond to available over-the-counter medications; certainly over-the-counter hydrocortisone cream is way too weak for this purpose. There is an over-the-counter product called Zanfel which claims fantastic ability not only to remove rhus oils before a rash starts, but to reverse an existing rash; I can't vouch for it, but maybe worth a try (it's not cheap however!). But the bottom line is that if you have a bad poison oak rash, you probably will need prescription medication if you want relief. (**Bruce:** Zanfel helped!)

Bruce: If you feel tingling, how about a cool shower vs. a warm bath?
Ben: The makers of Tecnu recommend using cool water when washing the oils off; this is presumably to avoid increasing absorption of the oils that you would get with warm water. However UpToDate (the medical textbook I mentioned above) says to use warm/hot water! I think the advantage of warm/hot water is that it may help dissolve the oils more effectively. More importantly, most people would probably cut a cold shower as short as possible — but you really want to be thorough and not rush this step. Washing as well is so important that I'm copying and pasting the entire paragraph about this from the UpToDate article at the bottom of this email, as it has some additional details.

After you have done your best to remove the oils, subsequent bath or shower temperature is just personal preference. Some people find hot showers heighten the sensation of itching but others feel that it sort of overwhelms the itch receptors and they get a short period of itch relief afterward.

Bruce: Fels-Naptha bar soap?
Ben: It is reputed to work for removing rhus oils; I haven't come across any studies about it.

Bruce: Rubbing Alcohol?
Ben: No, bad idea. It will be ineffective at removing the oils (you need a detergent for this) and it's drying and irritating; if you already have a rash it would probably be excruciating!

Bruce: Witch Hazel?
Ben: I don't have personal experience with it. Some sources say Witch Hazel can be helpful, especially for helping to soothe and dry up oozing, blistering rashes. But others say it should only be applied to intact skin! If you are going to try it, be aware that in rare instances it can cause allergic reactions so stop it, of course, if your rash seems to be getting worse.

Bruce: For a rash, how about Calamine Lotion?
Ben: Many people get relief with Calamine. Aveeno baths can also be soothing and helpful. Old-fashioned oral antihistamines like Diphenhydramine (Benadryl) may be helpful but mostly just because they are sedating (so they can help you sleep through the itching). Newer, non-sedating antihistamines are probably of no use at all.

The most effective treatment for a rash is steroids either in topical or oral form (or both). Topical steroids need to be high potency (e.g. hydrocortisone won't cut it). In my experience many doctors don't prescribe very well for this; they often prescribe a low or mid-range potency steroid and they very often only prescribe it for a week or so. A poison oak rash can be expected to last a good three weeks (or more) and if you stop steroids sooner than that the rash that had been improving or resolved will suddenly get bad again. If I were a patient, I would ask the doctor to prescribe enough to last three weeks at the outset.

Bruce: How about Aspercreme (Lidocaine) vs. Benzocaine?
Ben: Topical anesthetics and topical antihistamines are not recommended — they don't work very well (if at all) and they can cause allergic reactions.

Bruce: How about swelling?
Ben: Some swelling is to be expected if the rash is moderately severe. However poison oak rashes can also get infected. If your swelling suddenly gets worse, or your rash becomes painful or tender, or starts oozing pus, or you develop a fever, these are all signs of infection that should get immediate medical attention.

Bruce: Any other thoughts?
Ben: Inhaling fumes or aerosolized particles of poison oak can cause severe lung reactions so it should never be burnt or put through a shredder.

Also from the UpToDate article:
Washing — After a known exposure, patients should remove any contaminated clothing and wash the whole body with mild soap or dish soap on a damp washcloth under very warm or hot running water as soon as possible. One study found that after approximately 10 minutes on the skin, 50 percent of the urushiol can be removed. This number falls to 10 percent after 30 minutes and 0 percent after 1 hour [10].

Despite this, washing even two hours after exposure significantly reduces the likelihood and severity of dermatitis [15,16]. Some clinicians suggest washing the entire body three times while always wiping in one direction, not back and forth; this seems to reduce irritation and help remove the oils [16]. If there is no rapid access to dishwashing liquid, plain water can be used to wipe the skin in the same fashion. This will at least remove some of the resin.

Comparison of dishwashing liquid with more expensive products made for removing poison ivy oils did not show a difference in effectiveness [15]. Clothing, tools, or other items that may be contaminated with the oleoresin should also be washed with warm, soapy water prior to reuse.

Bruce: Thank you Ben! Hope to see you steaming at the track again soon.
Ben: All the best!

p.s., From the Zanfel Product information sheet
Arg..., **"Roots and vines may be 10 to 100 times more potent than the leaves of the plant."**

The oil "can get on your pets, tools, gloves, clothing, shoes, and bedding — and contaminate upon contact." Any soap and water will wash the oil away from non-human surfaces. Sounds like we should use a cleanser on car windowsills and seats too.

Ben (a.k.a, Dr. Ben Lerman, M.D.) with his Conner Beam Engine