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Letters

On transplants and 'torture'

I was mildly amused by the letter from Arden D. Zimmerman regarding the artificial heart ("Prolonged torture," SN: 1/26/85, p. 51). Since Feb. 1, 1970, I have been living with a transplanted kidney (which, of course, has no connection to my central nervous system) and have never noticed the "prolonged torture." While there was pain immediately after the operation and for the first week or so, that can hardly be considered "prolonged torture" when compared with the 15 following years.

The other kidney transplant recipients I know must also be numb, as must all those people with heart pacemakers, artificial limbs, hearing aids and eyeglasses, for none of those devices connects directly to the central nervous system either.

James Pendzick
Milwaukee, Wis.

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Chelator clarified

In your article on the abundance of *Bacillus cereus* in soil overlying metal ore deposits ("Cereus bacteria go for the gold," SN: 2/16/85, p. 102), you commented that penicillin is commonly used to treat copper toxicity in humans. In fact, neither penicillin G (benzyl-6-amino-penicillanic acid) nor the other penicillins have any metal-chelating activity.

Undoubtedly you meant to refer to penicillamine (D-beta-beta-demethylcysteine), a very different compound derived from penicillin by the hydrolytic degradation of its thiazolidine and beta-lactam rings. Penicillamine is in fact an excellent metal chelator and is used in treatment of Wilson's disease (copper toxicity) as well as mercury, lead and other heavy metal poisonings.

Philip K. Lane
Harvard Medical School
Boston, Mass.

Ed.s note: The graphs accompanying "IR can spy plant stress before eyes do" (SN: 2/2/85, p. 70) foster two misimpressions: that infrared radiation (IR) includes wavelengths from 400 to 700 nanometers (nm), and that IR-sensitive film can measure thermal IR emissions. Explains researcher George Edwards, the 400- to 700-nm wavelengths measured by the "IR-sensitive" film he uses are in fact in the visible portion of the electromagnetic spectrum. However, he adds, because changes observed here "are caused by the near-infrared portion of the spectrum," they still serve as a gauge of IR alterations due to stress.

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