# Safety and Health Fact Sheet No. 16 © 1998 American Welding Society



#### DEFINITION

Pacemakers are devices which are implanted in cardiac patients to ensure proper heart rhythm. Since these devices are electrical in operation, their ability to function can be affected by strong electromagnetic fields.

#### WELDING AND ELECTROMAGNETIC FIELDS

Electric arc welding and cutting processes produce intense electric and magnetic (electromagnetic) fields. Persons with a pacemaker should not go near welding or cutting operations until they have consulted their doctor and obtained information from the manufacturer of the device.

## STEPS TO REDUCE EXPOSURE

Pacemaker wearers should observe the following precautions:

- Do not use current settings higher than necessary.
- Keep the weld cables as close together as possible by twisting or taping them.
- Connect work clamp to workpiece as close to the weld as possible.
- Arrange cables to one side and away from the operator.
- Keep welding power source and cables as far away as practical.
- Do not weld with rapidly repeated short spurts—wait about 10 seconds between each weld.
- If you feel sick, stop welding immediately and get medical attention.
- Do not work alone.

# TALK TO THE DOCTOR

If you are getting a pacemaker and will be working with or around welding, talk with your doctor. Inform him of your occupation. Discuss your work clearly with him. Pacemakers differ, and your doctor can select one that is less likely to be affected by interference.

### **INFORMATION SOURCES**

Guidant Corporation, 4100 Hamline Avenue North, St. Paul, MN 55112-5798, Phone: 800-505-4636.

Medtronic, Inc., 7000 Central Avenue, N.E., Minneapolis, MN 55432-3576, Phone: 800-505-4636.