SPIDER LEGS

Attention young gardeners! How Can You Tell If a Spider Is Dead? In his book, *The Physical World of Animals and Plants,* Steven Vogel says that if a spider is not moving and all its legs are flexed (pulled in toward its body) it's likely to be dead. Spiders' legs have flexor muscles (muscles that bend the legs in toward the body) they do not have extensor muscles (muscles that would cause the legs to straighten and point away from the spider's body). So how does a spider extend its legs? In the 1940s, zoologist C.H. Ellis noted that, as a rule, dead spiders have flexed legs. Whatever straightens a spider's legs in life is inoperative in death. The legs of a living spider contain fluid under pressure that tends to straighten the legs, just like water pressure stiffening a garden hose, or hydraulic fluid pressure lifting a car at a garage. The spider increases fluid pressure when it wants to extend its legs more forcefully. If a spider's leg is cut, the spider can't straighten that leg until it seals off the fluid leak. If the spider dies, it can't maintain its internal fluid pressure and there is no force to straighten the legs again.