SAD

1 Years ago, medical researchers identified a psychological disorder that they appropriately named **S**easonal **A**ffective **D**isorder, or SAD. People who suffer from SAD become very depressed during the winter months. Doctors now understand the causes of this condition, which affects millions of people, particularly in areas of the far north where winter nights are long and the hours of daylight are few.

2 SAD results from a decrease in the amount of sunlight sufferers receive. Doctors know that decreased sunlight increases the production of melatonin, a sleep-related hormone that is produced at increased levels in the dark. Therefore, when the days are shorter and darker, the production of this hormone increases. Shorter, darker days also decrease production of seratonin, a chemical that helps transmit nerve impulses. Lack of seratonin is known to be a cause of depression ("Seasonal" HH, par. 1).[1] Depression may result from the resulting imbalance of these two substances in the body. Also, doctors believe that a decrease in the amount of sunlight the body receives may cause a disturbance in the body's natural clock ("Seasonal" NMHA, par. 2).[2] Doctors believe that the combination of chemical imbalance and biological clock disturbance results in symptoms such as lethargy,[3] oversleeping, weight gain, anxiety, and irritability—all signs of depression.

3 Since absence of light seems to be the cause of this disorder, a daily dose of light appears to be the cure. Doctors advise patients to sit in front of a special light box that simulates[1] natural light for a few hours every day. An hour's walk outside in winter sunlight may also help (par. 4).

4 In conclusion, the depressive effect of low sunlight levels may help explain the high suicide rate in the Scandinavian countries; more important, it may suggest a remedy: When the days grow short, turn on the lights.

Writing Technique Questions

1. Which paragraph contains the chain of causes and effects?
2. What is the effect of decreased sunlight in winter?
3. What other change results from a decrease in the amount of sunlight?
4. What is the final result?