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## THE JET-LAG DIET

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Can you fly from New York to San Francisco and arrive with your body and brain already set to Pacific time? What about New York to Honolulu or Tokyo or, to change directions, Paris or Nairobi?

For the vacationer who doesn't want to miss a minute of sightseeing abroad, for the business executive who must be sharp at a meeting soon after landing five time zones away from home, jet lag is a proverbial nuisance. But according to one expert on biological clocks, you need not waste part of your trip readjusting if you are willing to eat and drink according to a formula he has devised.

Dr. Charles F. Ehret, a senior scientist at the Argonne National Laboratory in Illinois, has found that you can greatly diminish or even eliminate entirely the disruptive symptoms of jet lag if you use his diet to reset your internal clock in advance of your departure.

Dr. Ehret's plan and other information about jet lag are described in "Overcoming Jet Lag," which he wrote with Lynne Waller Scanlon (Berkley Publishing, \$4.95).

Dr. Ehret says "tens of thousands" of people have tried his antijet-lag diet and nearly all have found it to be highly effective. It was developed after years of research on experimental animals and human volunteers revealed that what you eat and drink, how much and when can influence your body's natural rhythms. Though many things are still not known about these rhythms, Dr. Ehret says "enough tricks" are already established to make it worth applying them.

Jet lag occurs when the body's circadian rhythms are out of sync with the environment. Jet lag is far more than simply feeling tired and hungry at the wrong times. It is a temporary mental and physical dysfunction that cannot be quickly alleviated by taking a nap or by forcing yourself to adopt the sleeping and eating pattern of your new setting.

Dr. Ehret's plan combines a number of so-called zeitgebers, or synchronizers of body rhythms, in a way that he says enables the body to make abrupt shifts in its natural cycles. Zeitgebers include caffeine and related chemicals; size and contents of meals, alcohol, light, exercise and social factors.

The number of time zones you plan to cross determines how many days in advance of your departure you should follow his scheme. For travel within the continental United States, two days are probably enough, but travel abroad requires four days on the diet plan. The system, which basically alternates feast and fast and ends with a highprotein breakfast, goes like this:

1. Determine when breakfast time will be at your destination. 2. Starting four days before the day you are to arrive, drink no coffee, tea, caffeinated soft drinks or alcohol except between 3 and 5 P.M. Eat all meals at the regular times. The first day is a feast day: Eat a hearty high-protein breakfast and lunch (eggs, cheese, meats, high-protein cereal, cooked dried beans or peas) and a highcarbohydrate dinner (pasta, pancakes, potatoes, rice, bread, sweet dessert) that contains no high-protein food.
3. On day two, follow a modified fast: Eat light meals of salads, thin soups, fruits and juices. Keep carbohydrates, fats and calories to a minimum.
4. On day three, repeat the feast day. 5. On day four (departure day), repeat the fast day. If you are traveling eastward, consume caffeinated beverages (if you drink them at all) only between the hours of 6 and 11 P.M. If you are traveling westward, consume caffeinated drinks only in the morning. Drink no alcoholic beverages on the plane.
6. Break your "fast" by having a high-protein breakfast at the predetermined breakfast time in your destination city. Dr. Ehret suggests ordering a special meal before your departure or asking the flight attendant to save your dinner or, failing that, bring along an appropriate breakfast. Before breakfast, sleep if you can, but no later than that preset time. After breakfast, stay awake and active. Leave your reading light on. You might try some isometric exercises in the aisle or lavatory or in your seat. Eat the rest of your meals that day according to mealtimes at your destination. If possible, eat with other people (don't call room service and eat alone in your room) since social interaction stimulates wakefulness.

The high-protein meals, exercises and light are intended to stimulate the body's active cycle. The high-carbohydrate meals stimulate sleep. The modified fasts help to deplete the liver's store of glycogen (a main muscle fuel) and prepare the body's clock for resetting. Caffeine and its chemical relatives can cause your biological rhythms to shift forward or backward, depending on the time they are consumed. Between 3 and 5 P.M., their effect is neutral.