

By Ginger Rutherford

The study of fat rats may seem like a strange preoccupation but the results may help us better understand the function of one of the hormones found in our bodies. This hormone is called Beta-endorphin. It was discovered by Dr. Choh Hao Li, director of the Hormone Research Laboratory of the University of California in San Francisco, and has been mainly recognized as the body's natural opiate. The hormone is secreted by the pituitary gland which is located at the base of the brain.

The report of a study published in *Science* concerns the effect that beta-endorphin might have on overeating and obesity. Research by Margules, Lewis, Shibuya and Pert was conducted using genetically obese rats and mice and their lean litter mates.

It had been previously found that the opiates, beta-endorphin and morphine, induced overeating in laboratory animals. It was also shown that the obese animals had two times more naturally occurring beta-endorphin in their pituitaries than their lean litter mates.

Therefore, the study was conducted to find out if the agent that stimulated overeating was actually the beta-endorphin or some other substance. To do this both fat and thin rats and mice were injected with an opiate repressant, naloxone. Naloxone stops the opiate qualities of beta-endorphin. If the opiate qualities were stopped, then what effect would this have on the feeding behavior of the animals?

The results were that doses of naloxone from .5 mg/kg to 5 mg/kg suppressed overeating in obese mice and rats. This effect was ten times greater in the obese animals than it was in their lean litter mates. Thus it was concluded that there is a relationship between high levels of beta-endorphin and obesity at least in the rats and mice tested.

It is thought that beta-endorphin when released into the body from the pituitary gland stimulates opiate receptors in the intestinal tract. When this happens feeding behaviors are stimulated. Thus an excess of beta-endorphin being received by the opiate receptors can lead to overeating through over-stimulation.

When naloxone is used to suppress the effects of beta-endorphin, the opiate receptors are not activated to produce feeding behaviors. A similar result may be achieved by the surgical removal of the opiate receptors. Often people who have intestinal bypass surgery lose the urge to overeat. Since the surgery sometimes removes an area of the intestine that contains many opiate receptors, it is possible that the effect of beta-endorphin in overeating may be reduced by the absence of some of the receptors.

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Wachovia Teller II Registers Nine Million Transactions

Wachovia Bank and Trust Company's network of Teller II automated teller machine registered a record nine million transactions in 1980, up from about six million transaction during 1979, according to James T. Brewer, manager of the bank's Retail Banking Department.

Thirty-three automated teller machines were added to the statewide network during the year, including twelve in communities where Teller II was introduced for the first time. Wachovia continued to have the largest automated teller machine network in North Carolina with a total of 86 machines in 34 cities.

The monthly average of transaction volume per machine was 8,400 which is about double the national average, Brewer said.

At the end of 1980, approximately 425,000 Wachovia customers held a Teller II banking card. This number increased by about 75,000 from 1979.

 <p>THRIFTY MAID SUGAR</p> <p>\$1.69</p> <p>5-LB. BAG</p> <p>YOU SAVE 30c</p> <p>WITH \$7.50 OR MORE ORDER (LIMIT ONE)</p>	 <p>W-D BRAND 100% PURE GROUND BEEF</p> <p>\$1.28</p> <p>IN 1, 2, 3, 5 & 10-LB. HANDI PAKS</p> <p>GOVT. INSPECTED</p> <p>LB.</p> <p>YOU SAVE 41c PER LB.</p>	 <p>U.S. #1 WHITE POTATOES</p> <p>\$1.69</p> <p>10-LB. VENT VUE BAG</p> <p>HARVEST FRESH</p>
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<p>SAVE 40c</p> <p>CRISCO OIL</p> <p>38-OZ. BTL. \$1.59</p> <p>WITH \$7.50 OR MORE ORDER (LIMIT ONE)</p> <p>PEPSI-COLA</p> <p>16 oz. Btl. \$1.49</p> <p>Ctn. of 8 Plus Deposit</p>	<p>MIX OR MATCH & SAVE!</p> <ul style="list-style-type: none"> 16-OZ. CAN CAMPBELL'S PORK & BEANS 16-OZ. CAN THRIFTY MAID CUT GREEN BEANS 16-OZ. CAN THRIFTY MAID SWEET PEAS 15-OZ. CAN THRIFTY MAID NAVY, PINTO, GREAT NORTHERN, KIDNEY BEANS OR BLACKEYES <p>3 FOR \$1</p>	<p>SAVE 20c</p> <p>ARROW DETERGENT</p> <p>84-OZ. BOX \$2.49</p> <p>SAVE 8c</p> <p>ARROW BLEACH</p> <p>HALF-GAL. JUG 49¢</p>	<p>FIELD TRIAL</p> <p>CHUNKS DOG FOOD</p> <p>50-LB. BAG \$8.79</p> <p>409 CLEANER</p> <p>64-OZ. JUG \$1.99</p>
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<p>SAVE 20c PER LB. ON HICKORY</p> <p>SMOKED PICNICS LB. 79¢</p>	<p>SAVE UP TO 40c</p> <p>MAXWELL HOUSE OR ASTOR COFFEE</p> <p>1-LB. BAG \$1.89</p> <p>WITH \$7.50 OR MORE ORDER (LIMIT 1 OF CHOICE)</p>	<p>SAVE 31c PER LB.</p> <p>W-D BRAND U.S. CHOICE BEEF BONELESS CHUCK ROASTS</p> <p>LB. \$2.18</p> <p>• STEAKS LB. \$2.38</p>	<p>MEAT VALUES</p> <p>SAVE 41c PER LB. ON FRESH</p> <p>ECONOMY CHOPS LB. \$1.18</p> <p>SAVE 31c PER LB. ON PINKY PIG FRESH</p> <p>CENTER CUT PORK CHOPS LB. \$1.98</p> <p>SAVE 20c PER LB. ON HOLLY FARMS</p> <ul style="list-style-type: none"> • FRYER DRUMSTICKS LB. \$1.09 • FRYER THIGHS LB. 99c <p>GWALTHEY'S BIG '8' FRANKS 1-LB. PKG. \$1.49</p> <p>OSCAR MAYER REG. OR BEEF BOLOGNA 8-OZ. PKG. 99¢</p>
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<p>W-D BRAND U.S. CHOICE BONELESS STEW BEEF</p> <p>LB. \$1.98</p>	<p>SAVE 20c</p> <p>JAMESTOWN FRESH PORK SAUSAGE 1-LB. ROLL 79¢</p>	<p>SAVE 30c ON W-D BRAND</p> <p>REG. OR DINNER FRANKS 1-LB. PKG. \$1.29</p> <p>REG. OR THICK BOLOGNA 1-LB. PKG. 1.49</p>	<p>WASHINGTON STATE RED DELICIOUS APPLES</p> <p>12 FOR \$1.98</p> <p>CALIF. SUNKIST NAVEL ORANGES</p> <p>9 FOR 99¢</p> <p>ROMAINE ENDIVE OR ESCAROLE</p> <p>2 FOR 99¢</p>
<p>THRIFTY MAID ICE MILK</p> <p>HALF-GAL. CTN. 99¢</p> <p>NEW EVERYDAY LOW PRICE!</p>	<p>SAVE UP TO 50c</p> <p>SUPERBRAND SWISS-STYLE OR ALL-NATURAL YOGURT</p> <p>8-OZ. CUPS 3 99¢</p>	<p>SAVE UP TO 50c</p> <p>SUPERBRAND MARGARINE 1-LB. CTNS. 3 1.19</p>	