OCTOBER 1987 VOLUME 36 NUMBER 10

# diabetes

A JOURNAL OF THE AMERICAN DIABETES ASSOCIATION®



DIAEAZ 36(10) 1089–1215 (1987)
ISSN 0012-1797

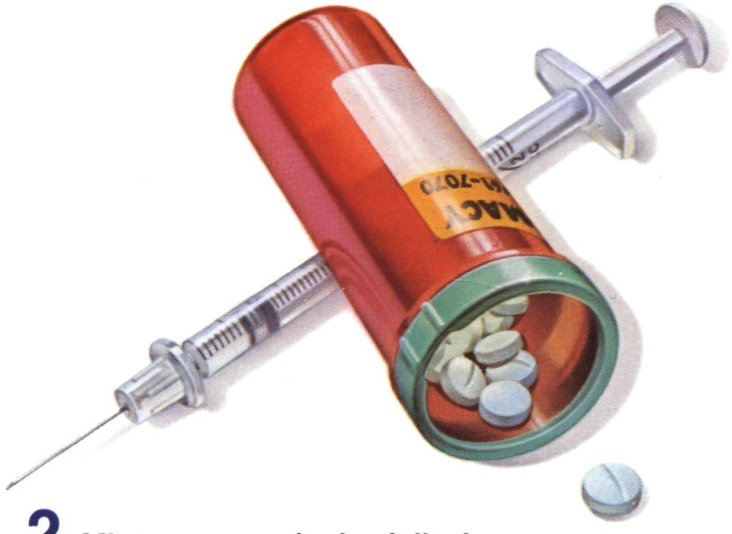
When a type II diabetic patient needs more than diet, unique MICRONASE® Tablets (glyburide) are a logical first choice.

# Choosing antidiabetic

## 1. Micronase—a rational choice in type II diabetes

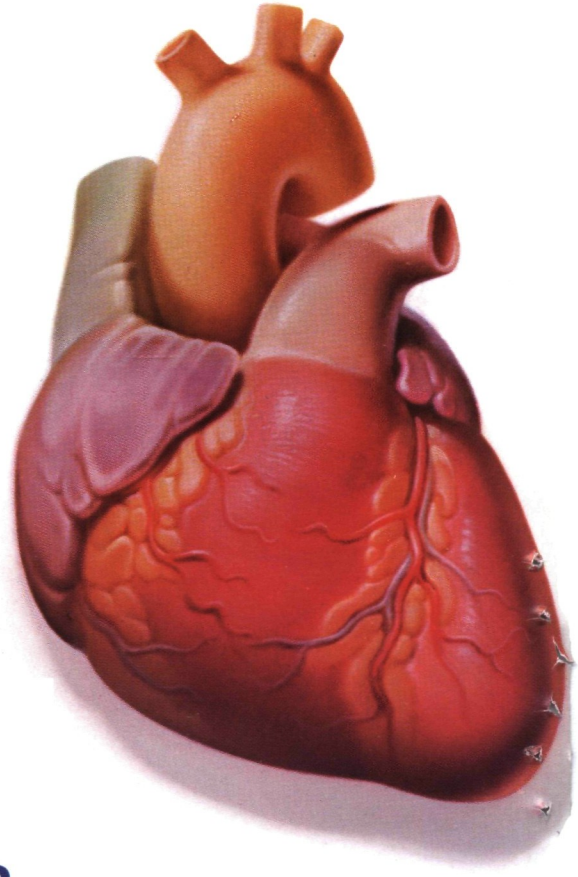
Insulin levels are normal or elevated in most patients with type II diabetes, although insulin action is markedly impaired. MICRONASE helps normalize the tissue response to endogenous insulin.

Initially, MICRONASE helps lower serum glucose in responsive patients by stimulating the release of additional insulin. As therapy continues, MICRONASE is believed to promote peripheral glucose metabolism by helping to correct defects at the cellular receptor and postreceptor levels.



## 2. Micronase—a single, daily dose provides 24-hour glycemic control

MICRONASE provides 24-hour control of blood glucose with a single, daily, low-milligram dose. MICRONASE may be taken with food, since food intake does not appear to affect its bioavailability.



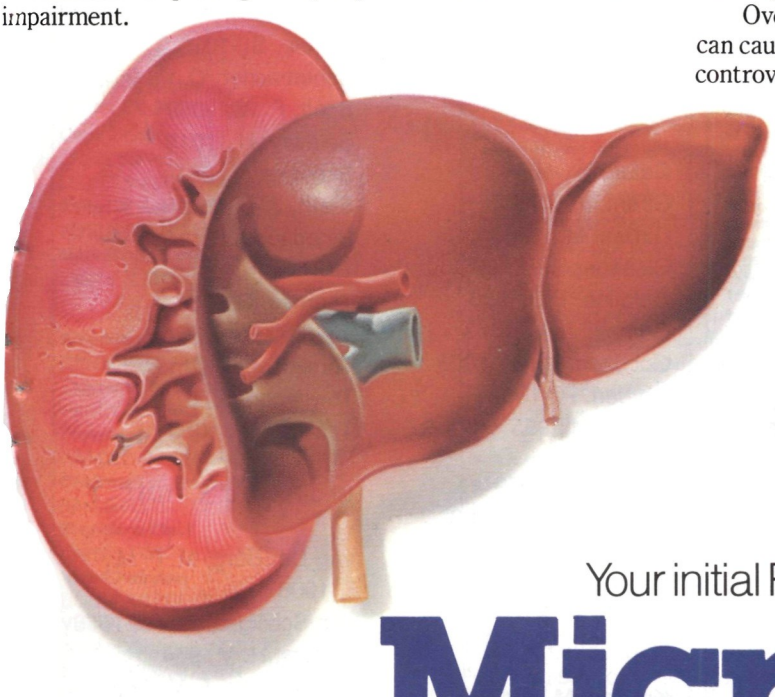
## 3. Micronase—for the type II diabetic patient who is also hypertensive: Control without risk of water retention

This may also be significant for the type II diabetic patier with congestive heart failure. MICRONASE actually causes mild diuresis.

# therapy today

## 4. Micronase—an important consideration in the type II diabetic patient with renal impairment: Control plus unique dual excretion... 50% urine, 50% bile

Elimination of MICRONASE equally in bile and urine reduces the risk of drug accumulation, which may result in hypoglycemia. MICRONASE should be used with caution in patients with renal impairment; however, in a single-dose study, plasma clearance of MICRONASE was prolonged only in patients with severe renal impairment.



## 5. Micronase—for the patient who fails on other diabetic therapy: Potency and dosage flexibility

MICRONASE may prove effective when other drugs fail. Five mg of MICRONASE is approximately equivalent to 250 mg of chlorpropamide or 500 mg of acetohexamide in its ability to lower blood glucose. The dosage range of MICRONASE allows for greater dosage flexibility than other agents.

Overdosage of sulfonylureas, including MICRONASE, can cause hypoglycemia. Although the interpretations are controversial, the UGDP study reported in 1970 that the use of tolbutamide, an oral hypoglycemic drug, was associated with increased cardiovascular mortality.

Upjohn The Upjohn Company
Kalamazoo, MI 49001

Your initial Rx in type II diabetes

# Micronase®

glyburide, 5 mg Tablets

For brief summary of prescribing information, please turn page.

## OCTOBER AUTHOR INDEX

(Volume 36, Number 10)

# diabetes

A JOURNAL OF THE AMERICAN DIABETES ASSOCIATION®


*Diabetes* and *Diabetes Care* are scientific research journals published by the American Diabetes Association. Both publish original high-quality reports on biomedical research related to the broad field of diabetes mellitus. *Diabetes* provides a forum for animal and human research primarily directed toward expanding knowledge of physiology and pathophysiology of diabetes mellitus. *Diabetes Care* provides a forum for applied research primarily directed toward improving the welfare of people with diabetes mellitus and enhancing understanding of the disease for health professionals.

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References should be presented in the style of the following examples and numbered in order of appearance in the text: For Periodicals—Banting FG, Best CH: The internal secretion of the pancreas. *J Lab Clin Med* 7:251–66, 1922. For Books—Allen M: *Studies Concerning Glycosuria and Diabetes*. Cambridge, MA, Harvard Univ. Press, 1913, p. 461.

A summary of the content of the paper of not more than 250 words should be provided. This should be self-contained and understandable without reference to the text.

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# "I WORK BETTER WHEN MY BLOOD GLUCOSE IS UNDER CONTROL."

"Now, with the GLUCOSCAN Meter, I understand why I feel as I do. Once I was at a large shopping center and I began to feel really shakey. I stopped right there and did a blood glucose test—my blood sugar was very low.

"I carry my GLUCOSCAN Meter with me all the time. Lately, I've been very busy. I find the memory feature of the GLUCOSCAN Meter helps a great deal, especially if I'm on the road and don't have my logbook with me to record my data.

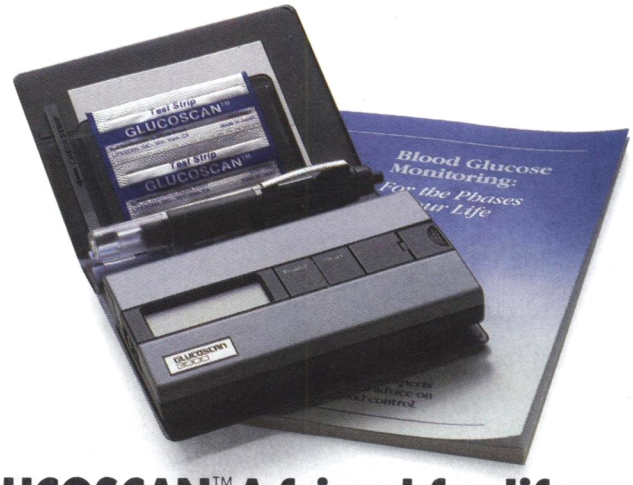
"I was so impressed with the GLUCOSCAN Meter I bought one for my dad, who has diabetes too. He's 86 years old and felt marginally well, his urine tests were OK, but his blood glucose level was very high. Blood glucose monitoring helped him cut his insulin intake nearly in half."

GLUCOSCAN is the blood glucose meter that keeps people with diabetes on the go and in tune with themselves and the rest of the world. It's so easy to use, blood glucose monitoring becomes second nature.

Factory calibrated to help ensure accuracy, you can trust your GLUCOSCAN Meter to take care of your blood glucose test results so you can concentrate on the rest of your life.

GLUCOSCAN Blood Glucose Meters are backed by LifeScan's reputation for prompt and caring service. And, LifeScan offers a **money-back guarantee** with each and every GLUCOSCAN Meter. The GLUCOSCAN Meter is available from over 3,000 authorized distributors nationwide. For the distributor near you, or for more information, call TOLL-FREE:

| | |
|---|---|
| United States | 1 800 227-8862 |
| Canada | 1 800 663-5521 |




**GLUCOSCAN™: A friend for life.**

*Kenneth Davis, age 45, has used the GLUCOSCAN Meter for 6 months. Roy Davis, age 85, for 4 months.*

LIFESCAN INC.

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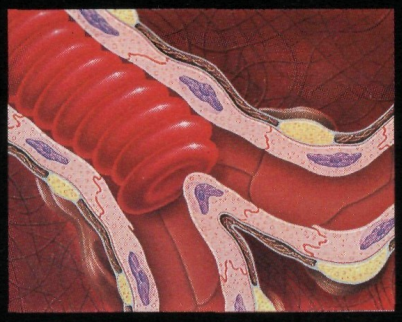
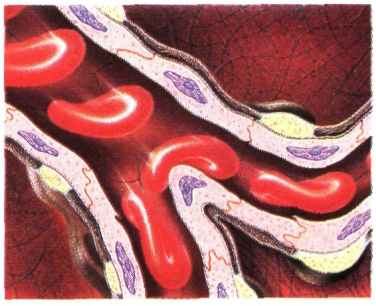
Mountain View, California 94043

# For diabetics with peripheral arterial disease...



Circulatory insufficiency—a well-known factor in the pathogenesis of diabetic complications—predisposes diabetics to intermittent claudication.[1] In addition to narrowing of the blood vessels, two specific microcirculatory abnormalities —decreased red cell flexibility and increased blood viscosity— are also associated with diabetes.[1,2] Although ideal glucose control might correct these abnormalities, glucose levels do fluctuate, and patients remain at risk.

# when microcirculatory blood flow improves, so does life.



Though glucose control may be imperfect, Trental® increases red cell flexibility and lowers blood viscosity. The flow of red cells—which are larger than the diameter of the microcirculatory vessels—is enhanced through the capillary bed, and tissue perfusion and oxygenation improve.[3-5]

Evidence of improved perfusion and oxygenation has been obtained from experimental measurements of partial pressures of oxygen ($pO_2$) in the calf muscles of patients with limb ischemia given Trental®.[6]

## Significant improvement in stabilized diabetics[2]

The effectiveness of Trental® on intermittent claudication has been demonstrated in a controlled trial of 50 maturity-onset diabetics stabilized on insulin, oral antidiabetics, or diet alone. Eighty-four percent of patients receiving Trental® 400 mg b.i.d. showed a significant improvement in walking distance, compared with 17% of those on placebo.

Trental®-treated patients also had significant improvement in paresthesias, skin temperature, and subjective overall response.

**Not a vasodilator • Not an anticoagulant**
**Not related to aspirin or dipyridamole**

# Trental®

(pentoxifylline) 400 mg Tablets

***The only proven-effective agent for intermittent claudication symptomatic of peripheral arterial disease***

Trental® can improve function and symptoms, but is not intended to replace more definitive therapy such as surgery.

Please see following page for references and brief summary of prescribing information.

**References: 1.** Oughton J, *et al:* Diabetes mellitus: Its effect on the flow properties of blood. *Horm Metab Res II* (Suppl):112-129, 1981. **2.** Schubotz R: Double-blind trial of pentoxifylline in diabetes with peripheral vascular disorders. *Pharmatherapeutica 1*(3):172-179, 1976. **3.** Dormandy JA, *et al:* Clinical, hemodynamic, rheological, and biochemical findings in 126 patients with intermittent claudication. *Br Med J 4*: 576, 1973. **4.** Reid HL, *et al:* Impaired red cell deformability in peripheral vascular disease. *Lancet 1*: 666, 1967. **5.** Stormer B, *et al:* Rheological changes in the blood of patients with chronic arterial occlusive disease after the administration of vasoactive drugs. *Curr Med Res Opin 4*: 588, 1977. **6.** Ehrly AM: Effects of orally administered pentoxifylline on muscular oxygen pressure in patients with intermittent claudication. *IRCS Med Sci 10*: 401, 1982.

**Trental®** (pentoxifylline) Tablets, 400 mg

A brief summary of the Prescribing Information follows.

**INDICATIONS AND USAGE:**

Trental® (pentoxifylline) is indicated for the treatment of patients with intermittent claudication on the basis of chronic occlusive arterial disease of the limbs. Trental® (pentoxifylline) can improve function and symptoms but is not intended to replace more definitive therapy, such as surgical bypass, or removal of arterial obstructions when treating peripheral vascular disease.

**CONTRAINDICATIONS:**

Trental® (pentoxifylline) should not be used in patients who have previously exhibited intolerance to this product or methylxanthines such as caffeine, theophylline, and theobromine.

**PRECAUTIONS:**

**General:** Patients with chronic occlusive arterial disease of the limbs frequently show other manifestations of arteriosclerotic disease. Trental® (pentoxifylline) has been used safely for treatment of peripheral arterial disease in patients with concurrent coronary artery and cerebrovascular diseases, but there have been occasional reports of angina, hypotension, and arrhythmia. Controlled trials do not show that Trental® (pentoxifylline) causes such adverse effects more often than placebo, but, as it is a methylxanthine derivative, it is possible some individuals will experience such responses.

**Drug Interactions:** Although a causal relationship has not been established, there have been reports of bleeding and/or prolonged prothrombin time in patients treated with Trental® (pentoxifylline) with and without anticoagulants or platelet aggregation inhibitors. Patients on warfarin should have more frequent monitoring of prothrombin times, while patients with other risk factors complicated by hemorrhage (e.g., recent surgery, peptic ulceration) should have periodic examinations for bleeding including hematocrit and/or hemoglobin. Trental® (pentoxifylline) has been used concurrently with antihypertensive drugs, beta blockers, digitalis, diuretics, antidiabetic agents, and antiarrhythmics, without observed problems. Small decreases in blood pressure have been observed in some patients treated with Trental® (pentoxifylline); periodic systemic blood pressure monitoring is recommended for patients receiving concomitant antihypertensive therapy. If indicated, dosage of the antihypertensive agents should be reduced.

**Carcinogenesis, Mutagenesis and Impairment of Fertility:** Long-term studies of the carcinogenic potential of pentoxifylline were conducted in mice and rats by dietary administration of the drug at doses up to approximately 24 times (570 mg/kg) the maximum recommended human daily dose (MRHD) of 24 mg/kg for 18 months in mice and 18 months in rats with an additional 6 months without drug exposure in the latter. No carcinogenic potential for pentoxifylline was noted in the mouse study. In the rat study, there was a statistically significant increase in benign mammary fibroadenomas in females in the high dose group (24 X MRHD). The relevance of this finding to human use is uncertain since this was only a marginal statistically significant increase for a tumor that is common in aged rats. Pentoxifylline was devoid of mutagenic activity in various strains of *Salmonella* (Ames test) when tested in the presence and absence of metabolic activation.

**Pregnancy:** Category C. Teratogenic studies have been performed in rats and rabbits at oral doses up to about 25 and 10 times the maximum recommended human daily dose (MRHD) of 24 mg/kg, respectively. No evidence of fetal malformation was observed. Increased resorption was seen in rats at 25 times MRHD. There are, however, no adequate and well controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, Trental® (pentoxifylline) should be used during pregnancy only if clearly needed.

**Nursing Mothers:** Pentoxifylline and its metabolites are excreted in human milk. Because of the potential for tumorigenicity shown for pentoxifylline in rats, a decision should be made whether to discontinue nursing or discontinue the drug, taking into account the importance of the drug to the mother.

**Pediatric Use:** Safety and effectiveness in children below the age of 18 years have not been established.

**ADVERSE REACTIONS:**

Clinical trials were conducted using either controlled-release Trental® (pentoxifylline) tablets for up to 60 weeks or immediate-release Trental® (pentoxifylline) capsules for up to 24 weeks. Dosage ranges in the tablet studies were 400 mg bid to tid and in the capsule studies, 200-400 mg tid.

The table summarizes the incidence (in percent) of adverse reactions considered drug related, as well as the numbers of patients who received controlled-release Trental® (pentoxifylline) tablets, immediate-release Trental® (pentoxifylline) capsules, or the corresponding placebos. The incidence of adverse reactions was higher in the capsule studies (where dose related increases were seen in digestive and nervous system side effects) than in the tablet studies. Studies with the capsule include domestic experience, whereas studies with the controlled-release tablets were conducted outside the U.S. The table indicates that in the tablet studies few patients discontinued because of adverse effects.

**INCIDENCE (%) OF SIDE EFFECTS**

| | Controlled- Release Tablets | | Immediate-Release Capsules | |
|---|---|---|---|---|
| | Trental® | Placebo | Trental® | Placebo |
| (Numbers of Patients at Risk) | (321) | (128) | (177) | (138) |
| Discontinued for Side Effect | 3.1 | 0 | 9.6 | 7.2 |
| CARDIOVASCULAR SYSTEM | | | | |
| Angina/Chest Pain | 0.3 | — | 1.1 | 2.2 |
| Arrhythmia/Palpitation | — | — | 1.7 | 0.7 |
| Flushing | — | — | 2.3 | 0.7 |
| DIGESTIVE SYSTEM | | | | |
| Abdominal Discomfort | — | — | 4.0 | 1.4 |
| Belching/Flatus/Bloating | 0.6 | — | 9.0 | 3.6 |
| Diarrhea | — | — | 3.4 | 2.9 |
| Dyspepsia | 2.8 | 4.7 | 9.6 | 2.9 |
| Nausea | 2.2 | 0.8 | 28.8 | 8.7 |
| Vomiting | 1.2 | — | 4.5 | 0.7 |
| NERVOUS SYSTEM | | | | |
| Agitation/Nervousness | — | — | 1.7 | 0.7 |
| Dizziness | 1.9 | 3.1 | 11.9 | 4.3 |
| Drowsiness | — | — | 1.1 | 5.8 |
| Headache | 1.2 | 1.6 | 6.2 | 5.8 |
| Insomnia | — | — | 2.3 | 2.2 |
| Tremor | 0.3 | 0.8 | — | — |
| Blurred Vision | — | — | 2.3 | 1.4 |

Trental® (pentoxifylline) has been marketed in Europe and elsewhere since 1972. In addition to the above symptoms, the following have been reported spontaneously since marketing, or occurred in other clinical trials with an incidence of less than 1%; the causal relationship was uncertain: Cardiovascular—dyspnea, edema, hypotension; Digestive—anorexia, cholecystitis, constipation, dry mouth/thirst; Nervous—anxiety, confusion; Respiratory—epistaxis, flu-like symptoms, laryngitis, nasal congestion; Skin and Appendages—brittle fingernails, pruritus, rash, urticaria; Special Senses—blurred vision, conjunctivitis, earache, scotoma; and Miscellaneous—bad taste, excessive salivation, leukopenia, malaise, sore throat/swollen neck glands, weight change.

A few rare events have been reported spontaneously worldwide since marketing in 1972. Although they occurred under circumstances in which a causal relationship with pentoxifylline could not be established, they are listed to serve as information for physicians: Cardiovascular—angina, arrhythmia, tachycardia; Digestive—hepatitis, jaundice; and Hemic and Lymphatic—decreased serum fibrinogen, pancytopenia, purpura, thrombocytopenia.

**OVERDOSAGE:**

Overdosage with Trental® (pentoxifylline) has been reported in children and adults. Symptoms appear to be dose related. A report from a poison control center on 44 patients taking overdoses of enteric-coated pentoxifylline tablets noted that symptoms usually occurred 4-5 hours after ingestion and lasted about 12 hours. The highest amount ingested was 80 mg/kg; flushing, hypotension, convulsions, somnolence, loss of consciousness, fever, and agitation occurred. All patients recovered.

In addition to symptomatic treatment and gastric lavage, special attention must be given to supporting respiration, maintaining systemic blood pressure, and controlling convulsions. Activated charcoal has been used to adsorb pentoxifylline in patients who have overdosed.

**DOSAGE AND ADMINISTRATION:**

The usual dosage of Trental® (pentoxifylline) in controlled-release tablet form is one tablet (400 mg) three times a day with meals.

While the effect of Trental® (pentoxifylline) may be seen within 2 to 4 weeks, it is recommended that treatment be continued for at least 8 weeks. Efficacy has been demonstrated in double-blind clinical studies of 6 months duration.

Digestive and central nervous system side effects are dose related. If patients develop these side effects it is recommended that the dosage be lowered to one tablet twice a day (800 mg/day). If side effects persist at this lower dosage, the administration of Trental® (pentoxifylline) should be discontinued.

**Hoechst-Roussel Pharmaceuticals Inc.**
Somerville, New Jersey 08876

**Hoechst**

***A giant step toward compliance...***

- Medication
- Diet
- Stopping smoking
- Exercise

Ask your Hoechst-Roussel representative for information about this innovative patient education program.


# Trental® 400 mg Tablets
## (pentoxifylline)

***The only proven-effective agent for intermittent claudication symptomatic of peripheral arterial disease...***



Q73130-287


# Soon more than a million.

## Soon more than a million insulin users will be taking Humulin.

And no wonder. Humulin is identical to the insulin produced by the human pancreas—except that it is made by rDNA technology.

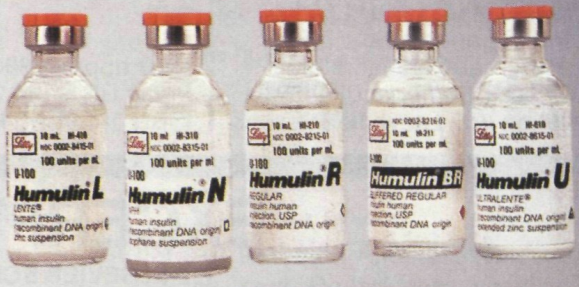
Humulin is not derived from animal pancreases. So it contains none of the animal-source pancreatic impurities that may contribute to insulin allergies or immunogenicity.

The clinical significance of insulin antibodies in the complications of diabetes is uncertain at this time. However, high antibody titers have been shown to decrease the small amounts of endogenous insulin secretion some insulin users still have. The lower immunogenicity of Humulin has been shown to result in lower insulin antibody titers; thus, Humulin may help to prolong endogenous insulin production in some patients.

**Any change of insulin should be made cautiously and only under medical supervision.** Changes in refinement, purity, strength, brand (manufacturer), type (regular, NPH, Lente®, etc), species/source (beef, pork, beef-pork, or human), and/or method of manufacture (recombinant DNA versus animal-source insulin) may result in the need for a change in dosage.

**DIET...EXERCISE...**

**Humulin®**
*human insulin*
*(recombinant DNA origin)*




**For your insulin-using patients**



HI-2901-T

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Lilly

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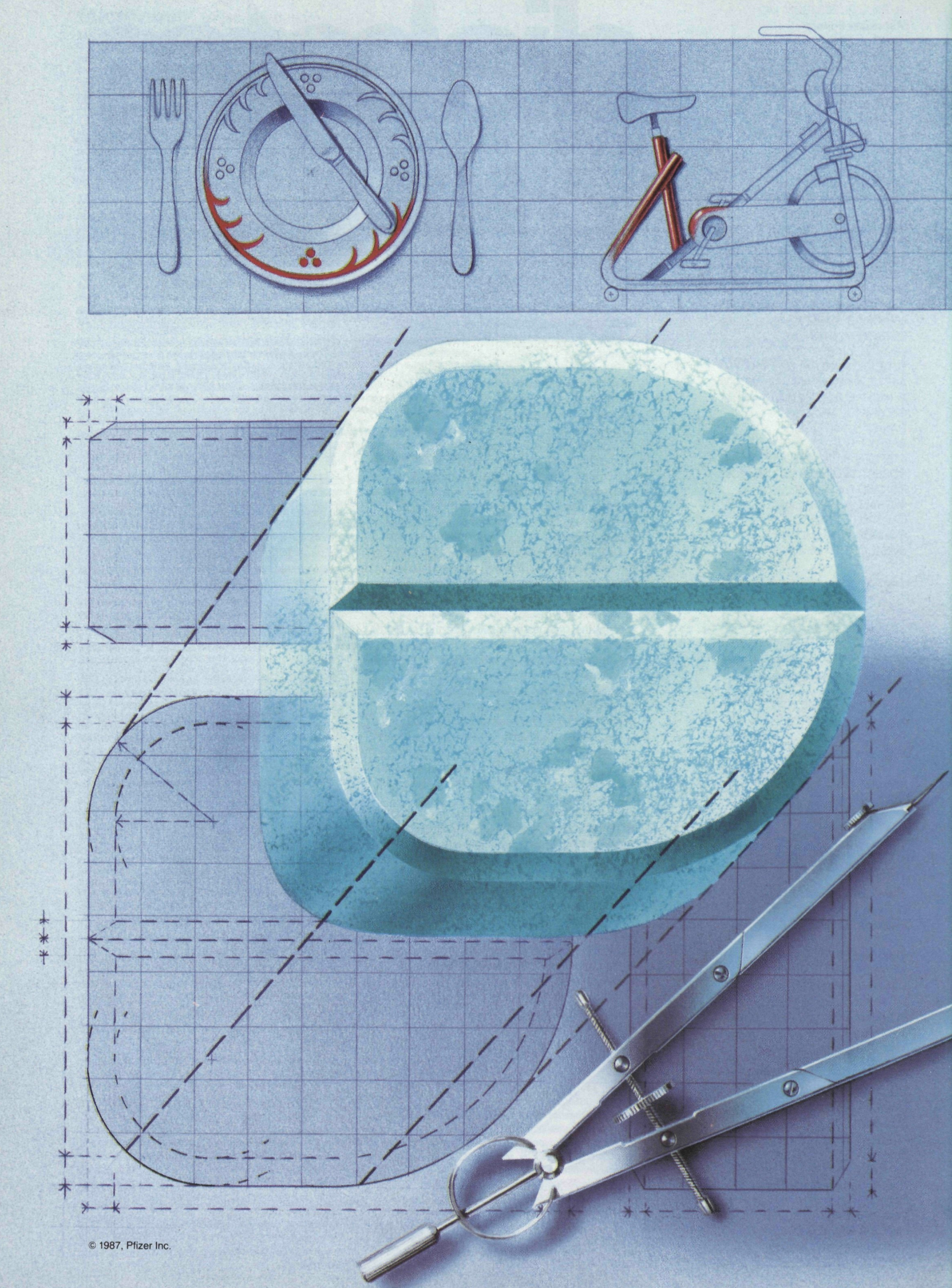
46285




# Master Plan for NIDDM Control

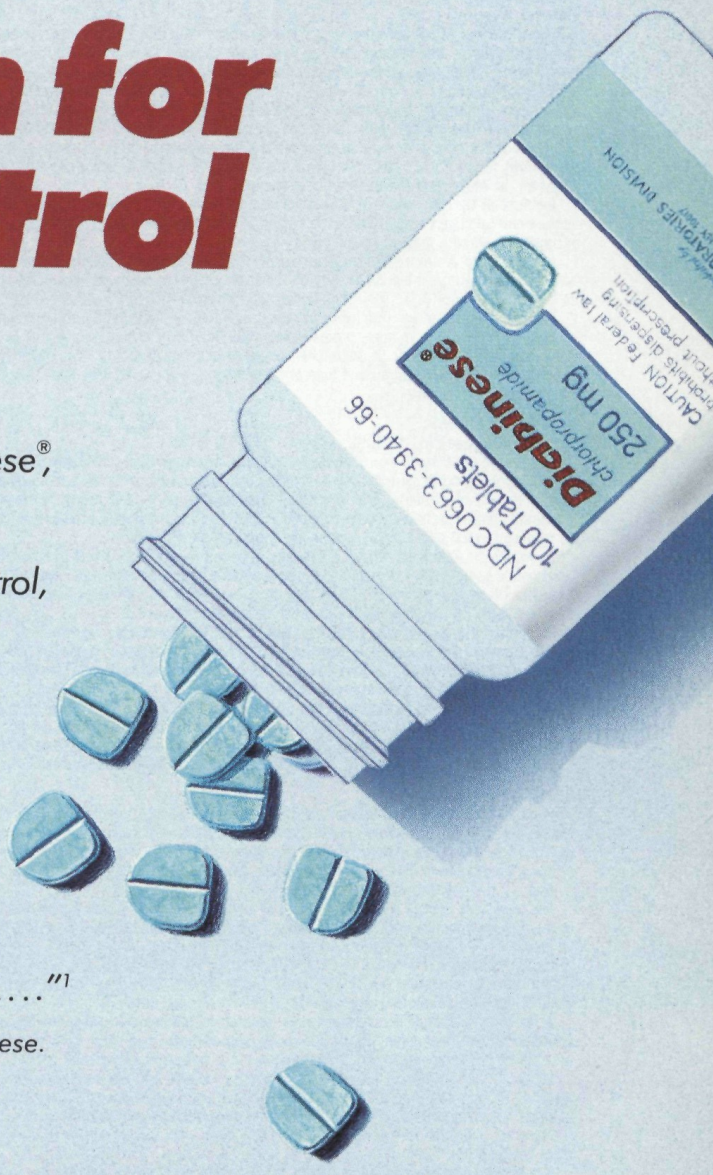
## A Diabinese® (chlorpropamide) prescription completes the design

*Diet, exercise, education and once-daily Diabinese®, dispensed as written, comprise the Master Plan for successful non-insulin-dependent diabetes mellitus (NIDDM) control. For overall NIDDM control, specify Diabinese® by name.*

## Proven Efficacy and Safety

*In a two-year study comparing Diabinese® to glyburide, "...chlorpropamide was clinically more effective with a smaller number of primary and secondary drug failures and a greater proportion of patients successfully controlled at the end of 2 years. Severe hypoglycemia was a greater hazard during treatment with glyburide...."*[1]

*As with all sulfonylureas, hypoglycemia may occur with Diabinese.*




## Once-a-day

# Diabinese®

## (chlorpropamide) *Tablets, USP, 100 mg, 250 mg and D-Pak*

## A GENERATION AHEAD IN NIDDM CONTROL

**Reference: 1.** Clarke BF: Comparative effectiveness of glyburide in the treatment of non-insulin-dependent diabetes, in *Diagnosis and Management of Diabetes Mellitus*. Postgraduate Medicine: Custom Communications, April 1982, pp 57-65.

*Please see Diabinese® (chlorpropamide) brief summary on the following page.*

Pfizer LABORATORIES DIVISION
PFIZER INC. NEW YORK, N.Y. 10017

BRIEF SUMMARY
**DIABINESE® (chlorpropamide)**
TABLETS, USP

**CONTRAINDICATIONS**
DIABINESE is contraindicated in patients with:
1. Known hypersensitivity to the drug.
2. Diabetic ketoacidosis, with or without coma. This condition should be treated with insulin.

**WARNINGS**
**SPECIAL WARNING ON INCREASED RISK OF CARDIOVASCULAR MORTALITY**

**The administration of oral hypoglycemic drugs has been reported to be associated with increased cardiovascular mortality as compared to treatment with diet alone or diet plus insulin. This warning is based on the study conducted by the University Group Diabetes Program (UGDP), a long-term prospective clinical trial designed to evaluate the effectiveness of glucose-lowering drugs in preventing or delaying vascular complications in patients with non-insulin-dependent diabetes. The study involved 823 patients who were randomly assigned to one of four treatment groups (*Diabetes*, 19 (supp. 2):747-830, 1970).**

**UGDP reported that patients treated for 5 to 8 years with diet plus a fixed dose of tolbutamide (1.5 grams per day) had a rate of cardiovascular mortality approximately 2½ times that of patients treated with diet alone. A significant increase in total mortality was not observed, but the use of tolbutamide was discontinued based on the increase in cardiovascular mortality, thus limiting the opportunity for the study to show an increase in overall mortality. Despite controversy regarding the interpretation of these results, the findings of the UGDP study provide an adequate basis for this warning. The patient should be informed of the potential risks and advantages of DIABINESE (chlorpropamide) and of alternative modes of therapy.**

**Although only one drug in the sulfonylurea class (tolbutamide) was included in this study, it is prudent from a safety standpoint to consider that this warning may also apply to other oral hypoglycemic drugs in this class, in view of their close similarities in mode of action and chemical structure.**

**PRECAUTIONS**
**General**

*Hypoglycemia:* All sulfonylurea drugs are capable of producing severe hypoglycemia. Proper patient selection, dosage, and instructions are important to avoid hypoglycemic episodes. Renal or hepatic insufficiency may cause elevated blood levels of DIABINESE and the latter may also diminish gluconeogenic capacity, both of which increase the risk of serious hypoglycemic reactions. Elderly, debilitated or malnourished patients, and those with adrenal or pituitary insufficiency are particularly susceptible to the hypoglycemic action of glucose-lowering drugs. Hypoglycemia may be difficult to recognize in the elderly, and in people who are taking beta-adrenergic blocking drugs. Hypoglycemia is more likely to occur when caloric intake is deficient, after severe or prolonged exercise, when alcohol is ingested, or when more than one glucose-lowering drug is used.

Because of the long half-life of chlorpropamide, patients who become hypoglycemic during therapy require careful supervision of the dose and frequent feedings for at least 3 to 5 days. Hospitalization and intravenous glucose may be necessary.

*Loss of control of blood glucose:* When a patient stabilized on any diabetic regimen is exposed to stress such as fever, trauma, infection, or surgery, a loss of control may occur. At such times, it may be necessary to discontinue DIABINESE (chlorpropamide) and administer insulin.

The effectiveness of any oral hypoglycemic drug, including DIABINESE, in lowering blood glucose to a desired level decreases in many patients over a period of time, which may be due to progression of the severity of the diabetes or to diminished responsiveness to the drug. This phenomenon is known as secondary failure, to distinguish it from primary failure in which the drug is ineffective in an individual patient when first given.

**ADVERSE REACTIONS**

*Hypoglycemia:* See PRECAUTIONS section.

*Gastrointestinal Reactions:* Cholestatic jaundice may occur rarely; DIABINESE should be discontinued if this occurs. Gastrointestinal disturbances are the most common reactions; nausea has been reported in less than 5% of patients, and diarrhea, vomiting, anorexia, and hunger in less than 2%. Other gastrointestinal disturbances have occurred in less than 1% of patients including proctocolitis. They tend to be dose related and may disappear when dosage is reduced.

*Dermatologic Reactions:* Pruritus has been reported in less than 3% of patients. Other allergic skin reactions, e.g., urticaria and maculopapular eruptions have been reported in approximately 1% or less of patients. These may be transient and may disappear despite continued use of DIABINESE (chlorpropamide); if skin reactions persist the drug should be discontinued.

Porphyria cutanea tarda and photosensitivity reactions have been reported with sulfonylureas.

Skin eruptions rarely progressing to erythema multiforme and exfoliative dermatitis have also been reported.

*Hematologic Reactions:* Leukopenia, agranulocytosis, thrombocytopenia, hemolytic anemia, aplastic anemia, pancytopenia, and eosinophilia have been reported with sulfonylureas.

*Metabolic Reactions:* Hepatic porphyria and disulfiram-like reactions have been reported with DIABINESE.

*Endocrine Reactions:* On rare occasions, chlorpropamide has caused a reaction identical to the syndrome of inappropriate antidiuretic hormone (ADH) secretion. The features of this syndrome result from excessive water retention and include hyponatremia, low serum osmolality, and high urine osmolality.

**DOSAGE AND ADMINISTRATION**

There is no fixed dosage regimen for the management of diabetes mellitus with DIABINESE or any other hypoglycemic agent. In addition to the usual monitoring of urinary glucose, the patient's blood glucose must also be monitored periodically to determine the minimum effective dose for the patient; to detect primary failure, and to detect secondary failure. Glycosylated hemoglobin levels may also be of value in monitoring the patient's response to therapy.

The total daily dosage is generally taken at a single time each morning with breakfast. Occasionally cases of gastrointestinal intolerance may be relieved by dividing the daily dosage. A LOADING OR PRIMING DOSE IS NOT NECESSARY AND SHOULD NOT BE USED.

**Initial Therapy:** 1. The mild to moderately severe, middle-aged, stable, non-insulin-dependent diabetic patient should be started on 250 mg daily. Older patients should be started on smaller amounts of DIABINESE (chlorpropamide), in the range of 100 to 125 mg daily.

2. No transition period is necessary when transferring patients from other oral hypoglycemic agents to DIABINESE. The other agent may be discontinued abruptly and chlorpropamide started at once. In prescribing chlorpropamide, due consideration must be given to its greater potency.

Many mild to moderately severe, middle-aged, stable non-insulin-dependent diabetic patients receiving insulin can be placed directly on the oral drug and their insulin abruptly discontinued. For patients requiring more than 40 units of insulin daily, therapy with DIABINESE may be initiated with a 50 per cent reduction in insulin for the first few days, with subsequent further reductions dependent upon the response.

Five to seven days after the initial therapy, the blood level of chlorpropamide reaches a plateau. Dosage may subsequently be adjusted upward or downward by increments of not more than 50 to 125 mg at intervals of 3 to 5 days to obtain optimal control. More frequent adjustments are usually undesirable.

**Maintenance Therapy:** Most moderately severe, middle-aged, stable non-insulin-dependent diabetic patients are controlled by approximately 250 mg daily. Many investigators have found that some milder diabetics do well on daily doses of 100 mg or less. Many of the more severe diabetics may require 500 mg daily for adequate control. PATIENTS WHO DO NOT RESPOND COMPLETELY TO 500 MG DAILY WILL USUALLY NOT RESPOND TO HIGHER DOSES. MAINTENANCE DOSES ABOVE 750 MG DAILY SHOULD BE AVOIDED.

**HOW SUPPLIED**

Blue, 'D'-shaped, scored tablets in strengths of 100 mg, tablet code 393; (100's, NDC #0663-3930-66; 500's, NDC #0663-3930-73; and 100 unit dose of 10 X 10, NDC #0663-3930-41) and 250 mg, tablet code 394; (100's, NDC #0663-3940-66; 250's, NDC #0663-3940-71; 1000's, NDC #0663-3940-82; 100 unit dose of 10 X 10, NDC #0663-3940-41; and 30's D-Pak, NDC #0663-3940-30).

**RECOMMENDED STORAGE:** Store below 86°F (30°C).

**CAUTION:** Federal law prohibits dispensing without prescription.

Pfizer **LABORATORIES DIVISION**
PFIZER INC., NEW YORK, N.Y. 10017

# NATIONAL ACHIEVEMENT AWARDS

Each year during the Annual Meeting, the ADA presents awards to honor individuals who have made significant contributions to the ADA through their work in the area of diabetes research, education, and service. These awards are designed to recognize excellence in these fields and to stimulate continuing achievement in these areas. Winners will be selected in the following categories:

- Outstanding Scientific Achievement by an Investigator (sponsored by Eli Lilly and Co.)
- Outstanding Physician Educator in Diabetes (sponsored by the Upjohn Co.)
- Outstanding Clinician in Diabetes (sponsored by Pfizer/Roerig)
- Outstanding Contribution to Camping and Diabetes (sponsored by Becton Dickinson Consumer Products)
- Outstanding Contribution to Diabetes in Youth (sponsored by Boehringer Mannheim Diagnostics)
- Outstanding Health Professional Educator in Diabetes (sponsored by Ames Division, Miles Laboratories)
- Outstanding Affiliate Service (sponsored by Squibb-Novo)
- Youth Leadership Award (sponsored by the NutraSweet Co.)

*By December 15, 1986,* each affiliate is invited to nominate *one* person in each of the award categories. The following criteria apply to all nominations:

- Current committee members are not eligible for the particular awards that their committees are presenting.
- There should be no more than *one* nominee per affiliate for each award.
- Nominees *may not* be current ADA officers or have held office within the past five years.
- If a nominee is not selected for the award, his/her nomination will remain on file and receive consideration for an additional 2 years. To ensure that these candidates receive consideration each year, it is necessary to reconfirm their nomination by submitting updated supporting material annually.

The awards process provides an opportunity to acknowledge those individuals who play a major part in the accomplishment of our goals, and represents one of the highlights of the Annual Meeting. We look forward to each affiliate's participation in this endeavor.

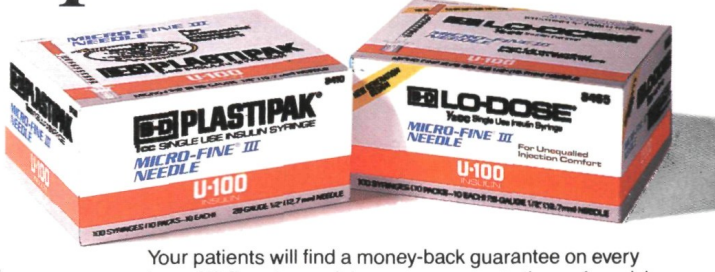
Please submit all nominations to the ADA's National Service Center, 1660 Duke Street, Alexandria, VA 22314, to the attention of Elaine Wells.

# *Unequalled injection comfort delivers unequalled patient compliance.*

## B-D *delivers.*

B-D MICRO-FINE® III is the thinnest, finest, sharpest needle ever made—for unequalled injection comfort.

The result is unequalled patient compliance with your insulin-administration instructions. No wonder physicians, nurses and hospitals use B-D syringes more than all other brands combined.




Your patients will find a money-back guarantee on every box of B-D syringes. It is our assurance to them of receiving the most comfortable injections they've ever had.



BETTER B-D DIABETES CARE

American Diabetes Association., Inc.

National Service Center 1660 Duke Street Alexandria, Virginia 22314 (703) 549-1500 Telex: 901132

# MORE GOOD NEWS!

The ADA National Service Center has recently contracted with a national computer center in Iowa. This facility will be responsible for maintaining all membership and subscriber records starting in October, 1987.

We are confident that this new relationship will help ensure timely delivery of your publications and accurate membership record-keeping.

However, as you probably know, whenever you switch computer systems, there is likely to be some "downtime", a short period of transition when service must be reduced. We know that our computers will be "down" during selected days in October. During this period, we will have limited access to ADA's file of members' names and addresses.

We are asking for your patience during this time. If you have a concern, please don't hesitate to let us know immediately. Rest assured that we will help you as soon as possible!

The entire ADA staff and the new computer facility look forward to serving you in the months and years to come.

Sincerely,

Caroline Stevens

Caroline Stevens
Publisher

PS Starting October 1, please send written correspondence related to membership directly to the computer center:

**American Diabetes Association**
Membership Center
P.O. Box 2055
Harlan, IA 51593-0238

*If you prefer to call, continue to use our toll-free number:* (800) ADA-DISC.
(In Virginia and metro Washington, D.C., please call (703) 549-1500.)

Due to an inadvertent printing error the date in the National Achievement Awards ad in this issue is incorrect. The corrected version is printed below.

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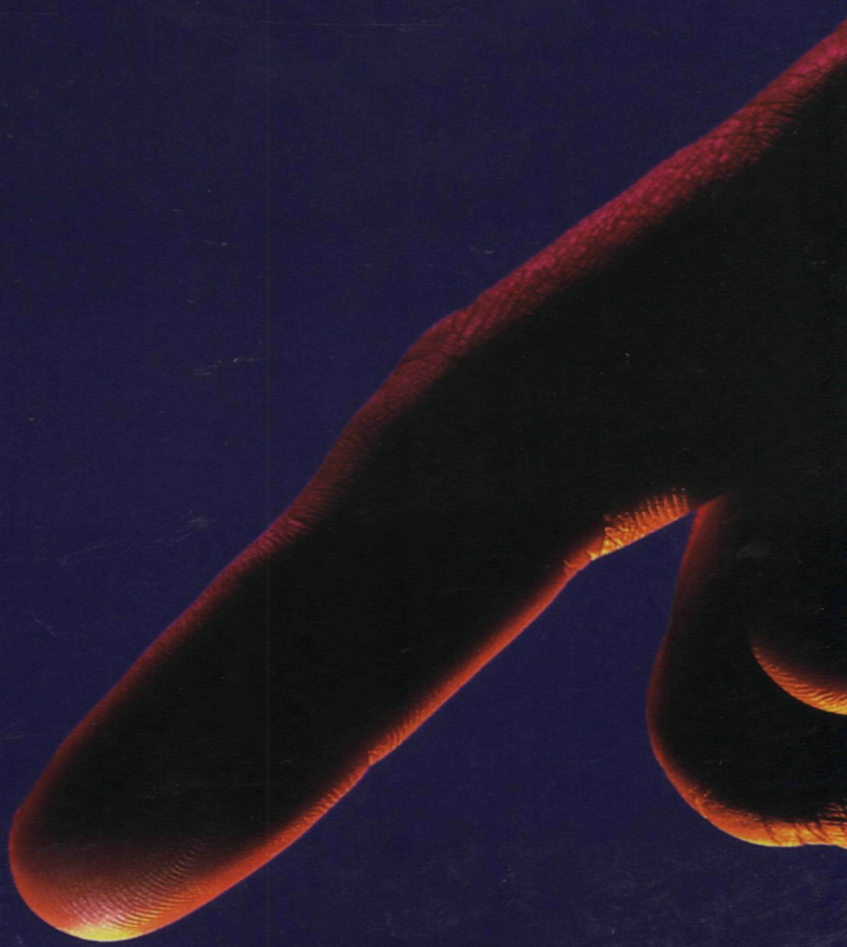
NO TIMING, WIPING OR BLOTTING.

# Finally, reliable blood glucose monitoring takes just one touch.



INTRODUCING

# ONE TOUCH™ SYSTEM

# A revolutionary blood glucose monitoring system from LifeScan.

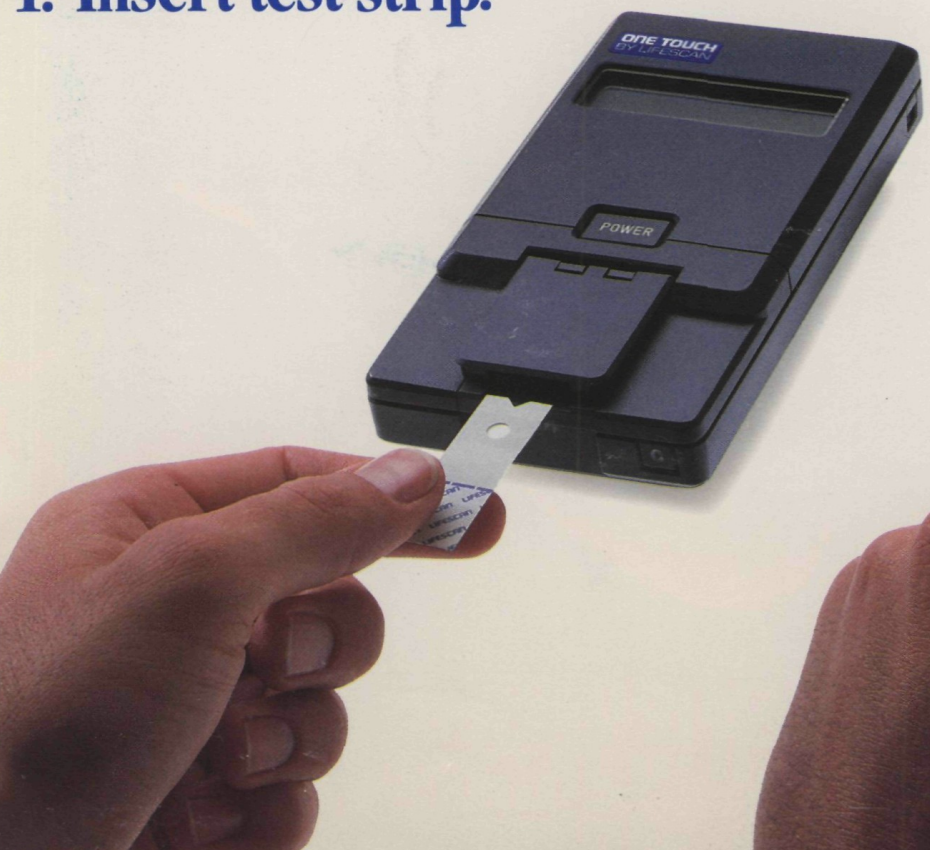
## One Touch—the first truly simple system.

The new One Touch System makes reliable blood glucose monitoring easier than ever. With One Touch, results can be achieved by touching the reagent pad just once—to apply blood—because no wiping or blotting is required.

### One Touch—no timing, no wiping, no blotting, no user demands.

The One Touch System eliminates three major demands on your patients: starting the test, timing the test and removing the blood. With the test strip in the meter, the patient presses Power, then applies the blood sample to the reagent pad at any time. At this

## 1. Insert test strip.




## 2. Press POWER.

point the meter takes over, starting the test automatically when it detects blood on the reagent pad. No blood removal is required, and results appear in just 45 seconds. *The opportunity for procedural error is virtually eliminated.*

## One Touch—easier to use, easier to handle.

The One Touch Meter provides a stable platform for the test strip while the blood sample is applied. The reagent pad is smaller, so less blood is required for each test. The test strip is wider, so it's easier to handle.

## One Touch—added features for greater convenience and confidence.

One Touch is the first blood glucose meter to provide interactive messages in plain English on a large, easy-to-read display.

With each One Touch test, numerous system self-checks (optics, software, memory function, strip presence and battery) are performed. And 250 previous test results may be recalled from memory.

## One Touch—designed for technique-independent testing.

When blood glucose monitoring is kept simple, results are more reliable. The One Touch testing procedure accomplishes this goal.

# 3. Apply sample.

# Result appears in just 45 seconds—with no timing, wiping, or blotting.


ONE TOUCH™
SYSTEM


**The Complete One Touch™ System Includes:**
One Touch Meter with Carry Case
One Touch Test Strips
Penlet™ Automatic Sampling Pen and Lancets
Glucose Control Solution
Instructional Audio Cassette
Owner's Booklet
Logbook

# Technology that tests the glucose, not the patient.

## Specifications:

### Fast test time
Results appear in just 45 seconds.

### Wider dynamic range
0 to 600 mg/dL (0 to 33.3 mmol/L).

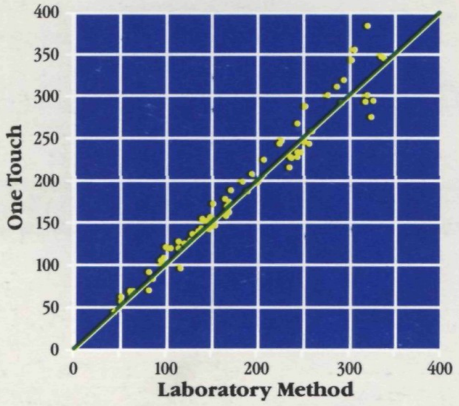
### Unsurpassed accuracy
When compared to a clinical laboratory instrument (YSI Model 23A Glucose Analyzer) at three different clinical locations, results from patients using the One Touch System demonstrated excellent correlation with the reference method.

slope 1.02
y intercept 4.7 mg/dL
correlation coefficient (r) 0.979

### Automatic memory
Stores most recent 250 readings. Data port for transferring memory contents to Data Manager™ unit for printed test histories with time and date.

### Easy-to-read display
Alphanumeric; dot matrix LCD.

### Comparison of One Touch used by patients vs. laboratory reference method*




### Customer satisfaction guarantee
No risk money-back guarantee on One Touch System within 30 days of purchase. Full three-year warranty on One Touch Meter.

### For a One Touch demonstration,
contact your LifeScan Professional Representative. For the name of your local Representative, call toll-free:

**In the U.S.: 1 800 227-8862**
**In Canada: 1 800 663-5521**

*Data on file, LifeScan, Inc.

ONE TOUCH™ SYSTEM

LIFESCAN INC.
a Johnson & Johnson company
Mountain View, California 94043

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