

well@home[®]

System Capabilities

Electronic Case Management

well@home[™] is ideally suited to meet the requirements of any organization which is committed to individualized electronic case management through in-home technology.

Empowering chronic patients to better self-manage their condition and helping them adhere to their physician's plan of care are concepts central to **well@home**.

In fact, alone among currently available tele-care technologies, **well@home** is driven by the physician's plan of care and uses it to provide each patient with specific health education and instructions along with reminders that are tailored to his/her plan of care and daily routine.

In short, **well@home** was designed to increase the quality of disease self-management and to improve compliance. This dual focus on patient education and compliance makes **well@home** unique in today's tele-care market.

Basic Operation of well@home

The **well@home** device is approximately the size and shape of a cigar box. Contained within the device are:

- An 8" color touch screen used for all interaction with the patient
- A modem used for communication with the web browser management system
- Physiologic measurement devices including a BP device, Pulse Oximeter, Temperature device and an ECG
- Ports for connection with external physiologic measurement devices such as a digital scale or glucometer
- Battery backup for portable use or use during power failures.



well@home Device

well@home provides information to patients via large, highly readable text, spoken human voice and colorful illustrations. Patients interact with the device via buttons displayed on the touch screen.

The Plan of Care

well@home is made aware of the physician's plan of care (nutrition, exercise and medications) for each patient and of certain patient-specific information (daily routine and specific alert criteria) via the web browser management system that is provided as part of the technology. Alternately, PtCT is interested in discussing with large prospective clients integration of the web browser management system with their existing information systems, or complete replacement of the web browser management system by client developed information systems.

Patsy Patient Account#: P-FDB4Test
Birth Date: 12/00/1934
Gender: Female

Add Medications [Well.at.Homepage](#) | [Log Off](#)

[Flowsheet](#) | [Chart](#) | [Orders](#) | [Schedule](#) | [Education](#) | [Pillbox](#) | [Contributors](#) | [Alert rules](#)

[Current Orders](#)

Type a medication name (or portion of a medication name), then click "Search" to find all medications matching that entry.

Medication Name

Aspirin

Search

Matches

- [Aspirin 60 mg Rectal Suppository](#)
- [Aspirin 81 mg Oral Tablet](#)
- [Aspirin 81 mg Oral Tablet, Chewable](#)
- [Aspirin 81 mg Oral Tablet, Delayed Release \(E.C.\)](#)
- [Aspirin 120 mg Rectal Suppository](#)
- [Aspirin 125 mg Rectal Suppository](#)
- [Aspirin 130 mg Rectal Suppository](#)
- [Aspirin 162 mg Oral Tablet, Delayed Release \(E.C.\)](#)
- [Aspirin 200 mg Rectal Suppository](#)
- [Aspirin 227 mg Oral Gum](#)
- [Aspirin 300 mg Rectal Suppository](#)
- [Aspirin 325 mg Oral Tablet](#)
- [Aspirin 325 mg Oral Tablet, Delayed Release \(E.C.\)](#)
- [Aspirin 500 mg Oral Tablet](#)
- [Aspirin 500 mg Oral Tablet, Delayed Release \(E.C.\)](#)

Patsy Patient  **Add Medication**

Well.at.Homepage | Log Off

Flowsheet | Chart | Orders | Schedule | Education | Pillbox | Contributors | Alert rules

Account#: P-FDB4Test
Birth Date: 12/00/1934
Gender: Female

Aspirin 500 mg Oral Tablet

* = Required

Specify when you would like this order to start by selecting the month, day, and year

* **Start date**
September | 22 | 2004

Specify when you would like this order to stop by selecting the month, day, and year.

Stop date
| | |

Specify the name of the clinician who prescribed this order.

* **Ordered By**
Welby, Marcus

Specify the number of units for each dosing of this medication.

* **Dose**
1


Specify the unit used to measure doses for this medication.

* **Dose Unit**
Each

Compliance Management

Based on the patient's plan of care, **well@home** reminds the patient to follow his/her orders in a timely manner:

Take Dyazide



Take two
Dyazide
capsules
by mouth now.

Have you taken this medication?

Yes 1


No 2

Back Next

well@home also asks questions about the reason(s) for non-compliance:

Take Glucophage XR

Why did you not take your medication?



Instructed not to 1

Ran out of it 2

Did not feel like it 3

Side effects of medication 4

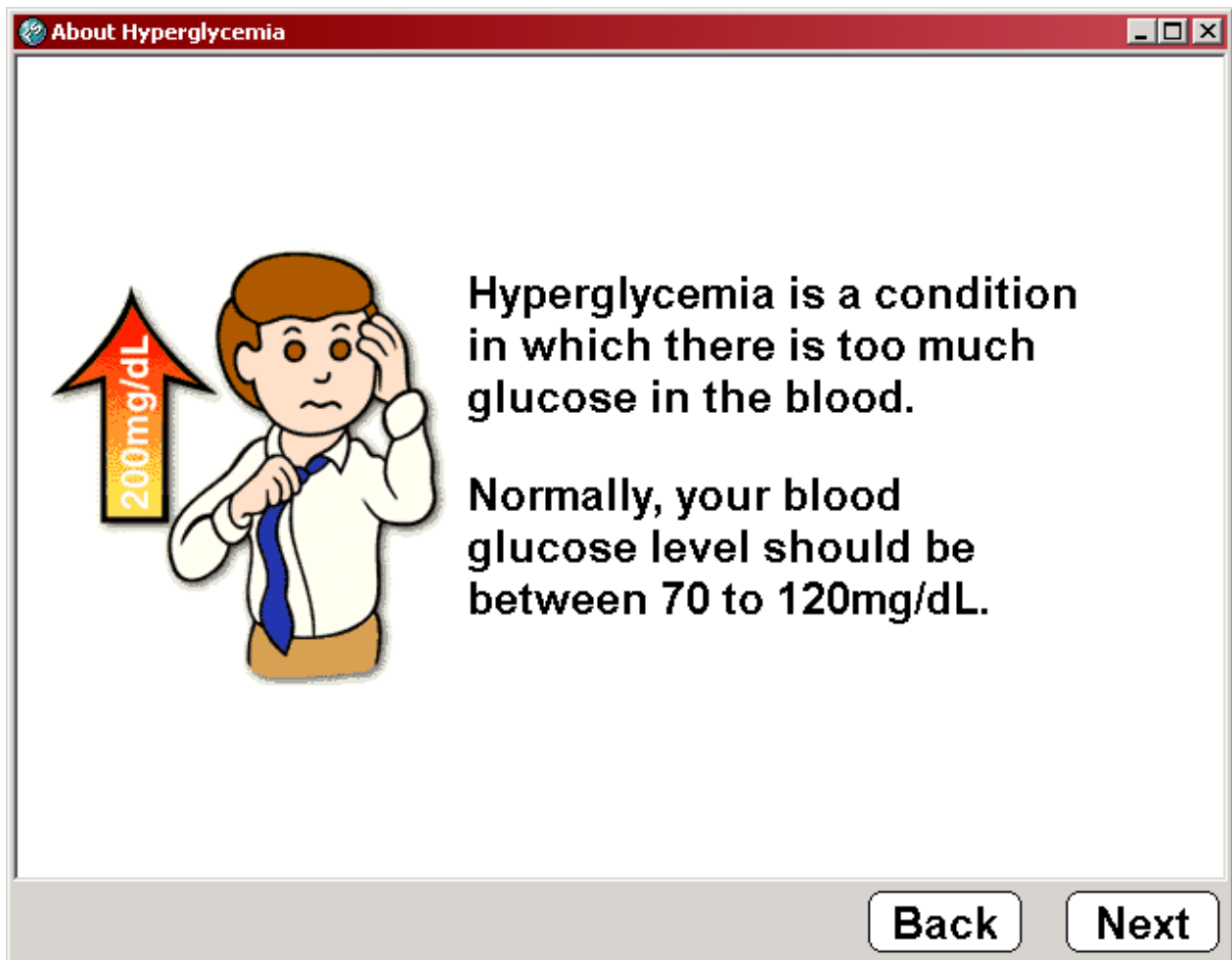
Back Next

Health Education

well@home provides educational information through simple step-by-step screens written at a fifth grade level. Patients can repeat each screen as often as needed. Graphics are used to illustrate proper procedure. Information is presented in three ways to meet the needs of the largest body of patients:

1. large text
2. simple illustrations
3. spoken human voice reading the text


well@home provides education on basic concepts relative to chronic disease, and assesses and documents the patient's comprehension after the information is reviewed:



The screenshot shows a software window with a red title bar containing the text "About Hyperglycemia" and standard window control icons. The main content area features a cartoon illustration of a man in a white shirt and blue tie, looking thoughtful with his hand on his forehead. To his left is a large red arrow pointing upwards, with the text "200mg/dL" written vertically inside it. To the right of the illustration, the text reads: "Hyperglycemia is a condition in which there is too much glucose in the blood." Below this, it states: "Normally, your blood glucose level should be between 70 to 120mg/dL." At the bottom right of the window, there are two buttons labeled "Back" and "Next".

Additional disease information:

About Hypoglycemia




Hypoglycemia is a condition in which there is not enough glucose in the blood.

Normally, your blood glucose level should be between 70 to 120mg/dL.

Back **Next**

Patient comprehension assessment:

About Diabetes



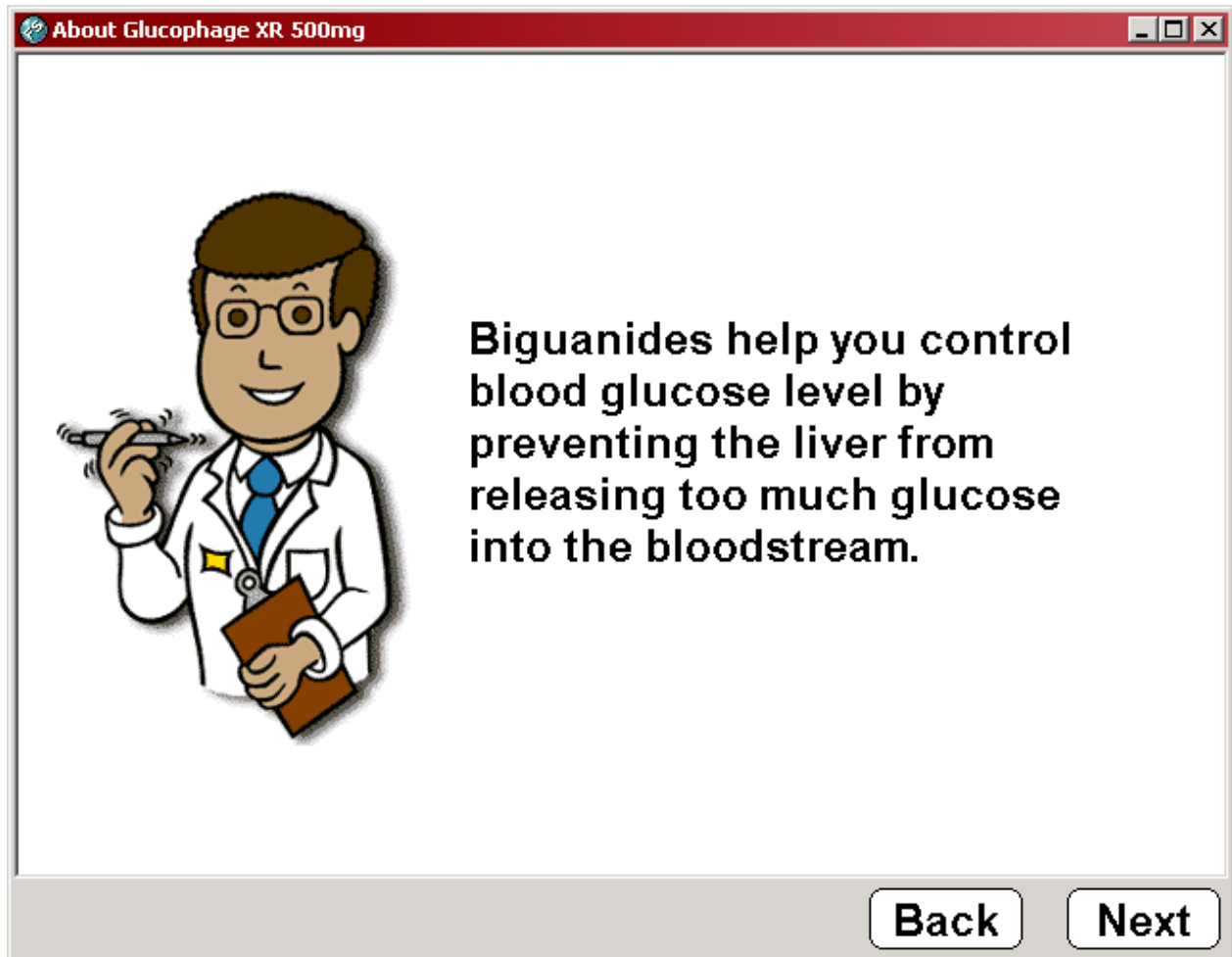
Do you understand this information about diabetes?

Yes 1

Somewhat 2

No 3

well@home provides patients with information about their medications:




The screenshot shows a software window with a red title bar containing the text "About Glucophage XR 500mg" and standard window control icons. The main content area features a cartoon illustration of a male doctor with glasses, wearing a white lab coat and a blue tie, holding a clipboard and a pen. To the right of the illustration, the following text is displayed:

Biguanides help you control blood glucose level by preventing the liver from releasing too much glucose into the bloodstream.

At the bottom right of the window, there are two buttons labeled "Back" and "Next".

Additional medication information:

About Glucophage XR 500mg

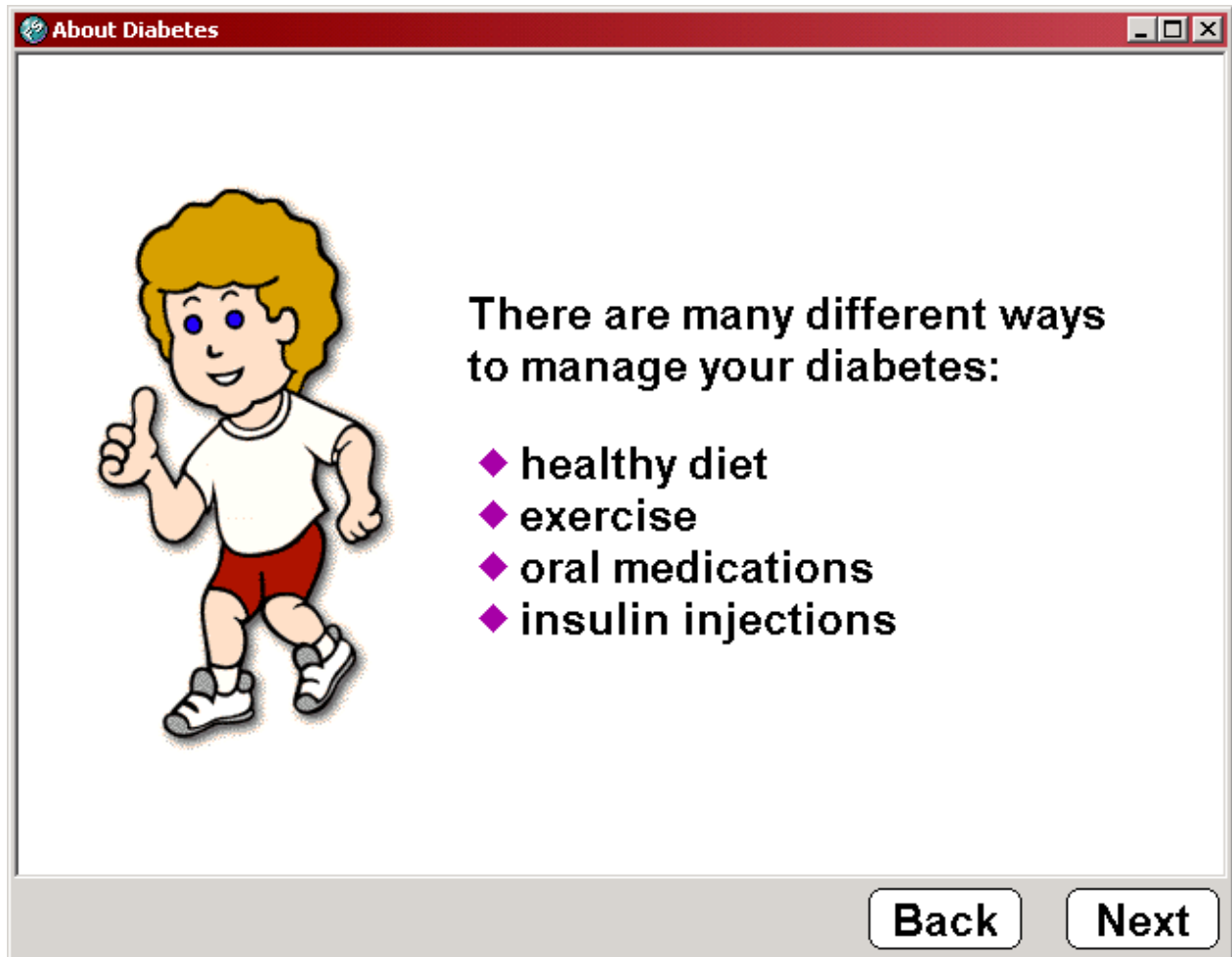


Possible side effects of this drug are:


- ◆ appetite loss
- ◆ abdominal pain
- ◆ excessive gas
- ◆ diarrhea
- ◆ vomiting
- ◆ nausea

Back **Next**

well@home provides educational information to encourage needed lifestyle changes:



About Diabetes

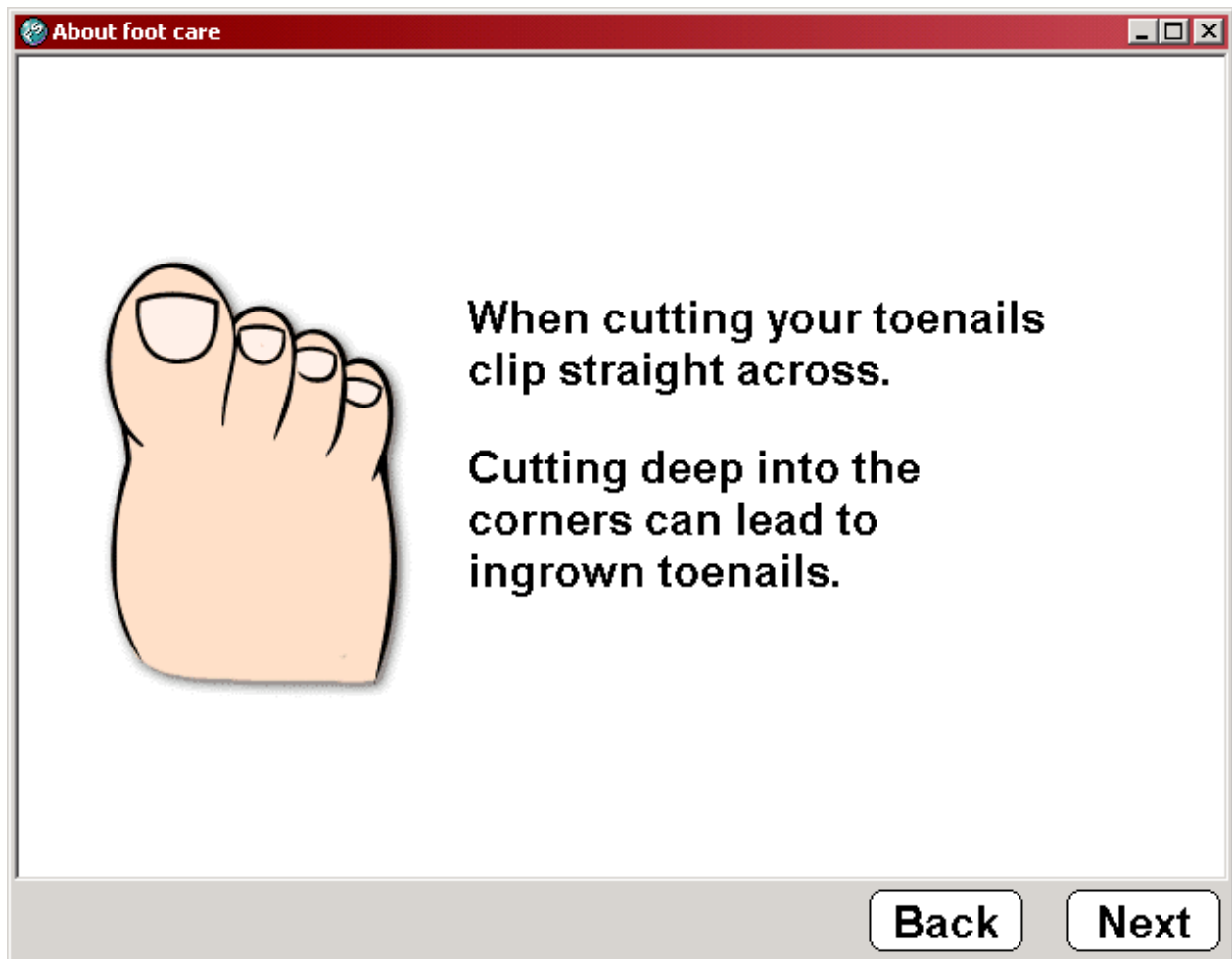


There are many different ways to manage your diabetes:


- ◆ healthy diet
- ◆ exercise
- ◆ oral medications
- ◆ insulin injections

Back **Next**

...and to avoid complications of chronic disease:



About foot care



**When cutting your toenails
clip straight across.**

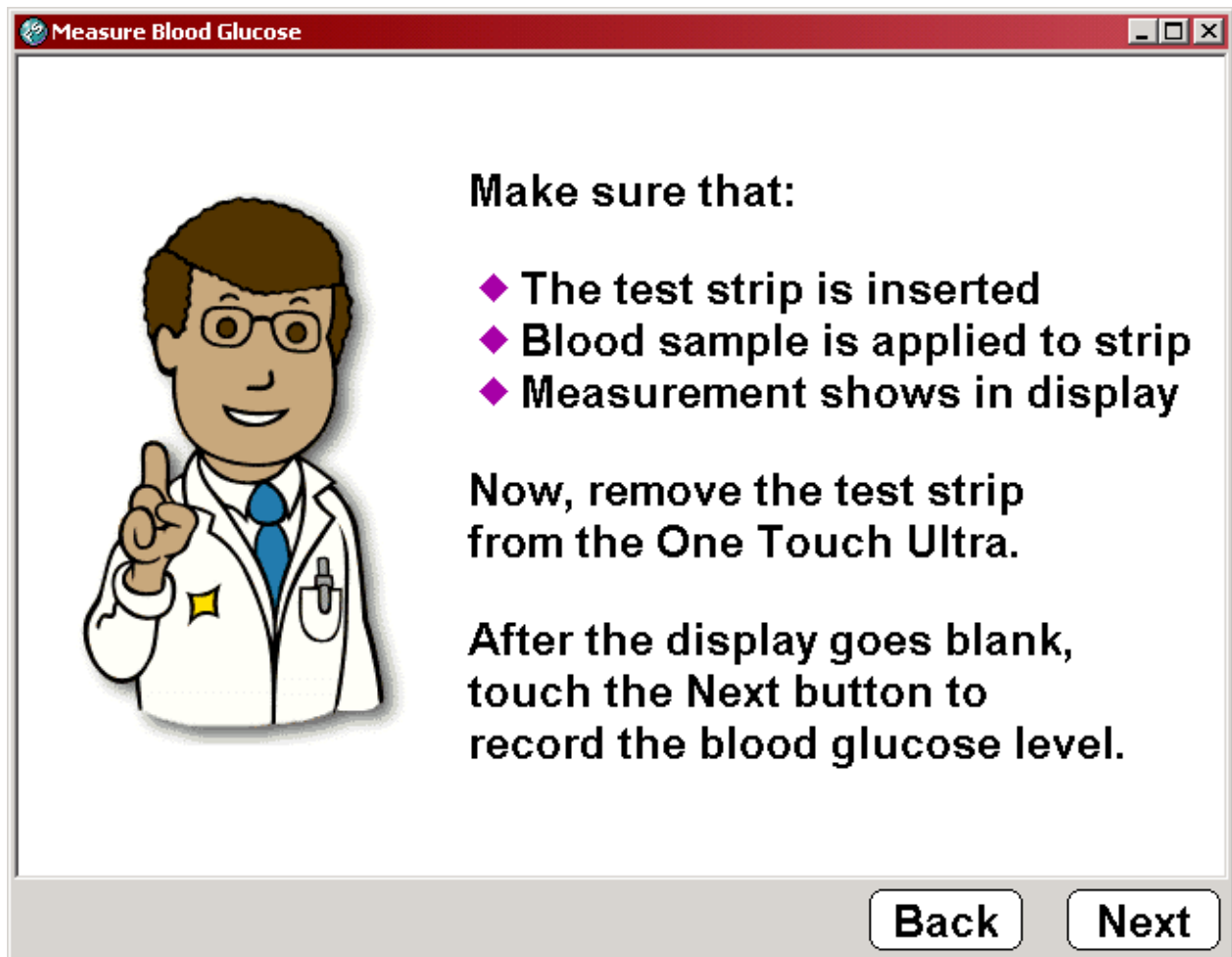
**Cutting deep into the
corners can lead to
ingrown toenails.**

Back **Next**

Instructional Material

In addition to disease-specific health education, **well@home** provides detailed instructional information specific to the measures to be taken by the patient according to his/her plan of care.

Below is one screen from the instructional sequence on using a glucometer:



The screenshot shows a software window with a red title bar containing the text "Measure Blood Glucose" and standard window control icons. The main content area is white and contains a cartoon illustration of a male doctor with brown hair and glasses, wearing a white lab coat over a blue shirt and tie. He is pointing his right index finger upwards. To the right of the doctor, the text reads: "Make sure that:" followed by a bulleted list of three items: "◆ The test strip is inserted", "◆ Blood sample is applied to strip", and "◆ Measurement shows in display". Below the list, the text says: "Now, remove the test strip from the One Touch Ultra." and "After the display goes blank, touch the Next button to record the blood glucose level." At the bottom right of the window, there are two buttons labeled "Back" and "Next".

Measure Blood Glucose

Make sure that:

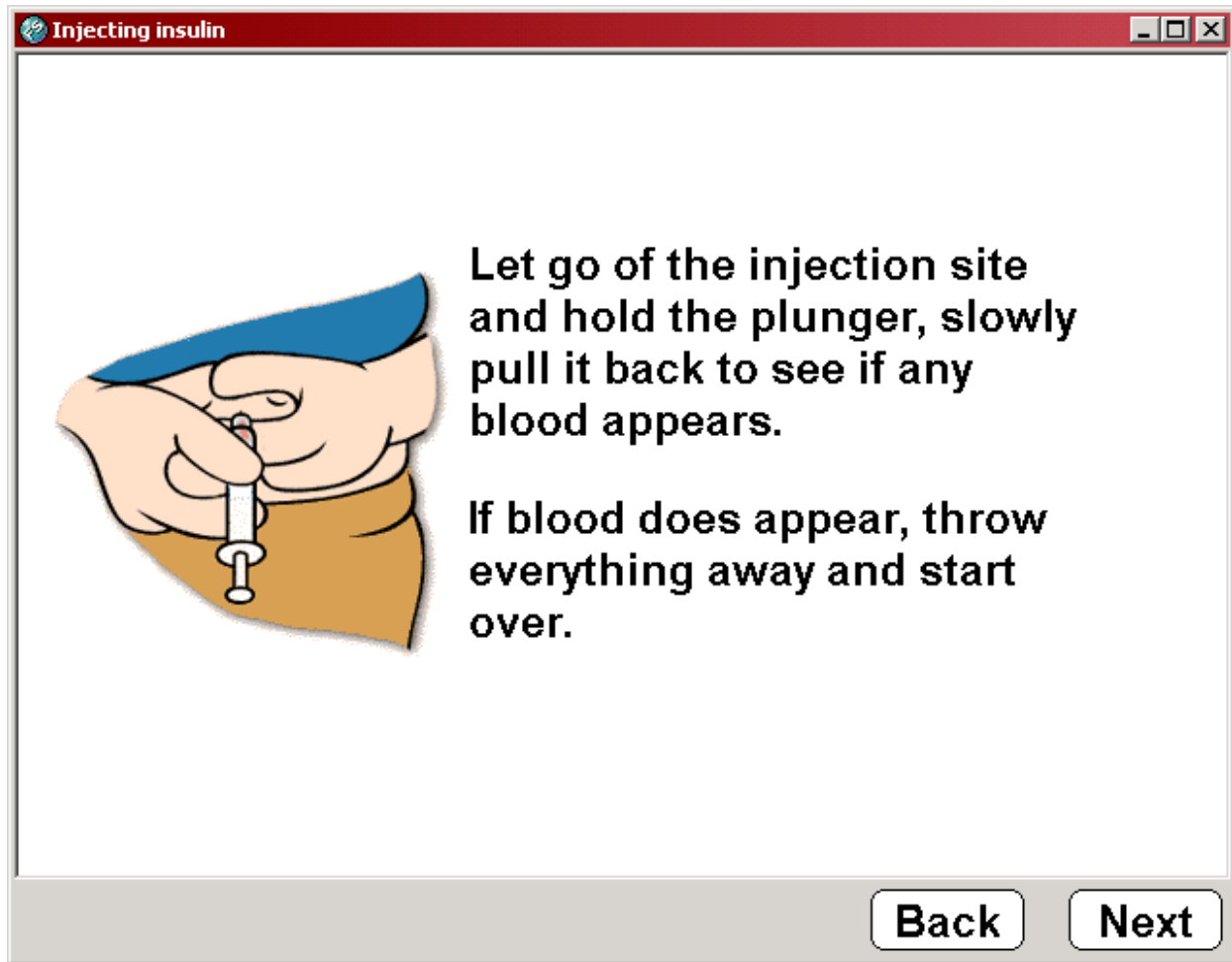
- ◆ The test strip is inserted
- ◆ Blood sample is applied to strip
- ◆ Measurement shows in display

Now, remove the test strip from the One Touch Ultra.


After the display goes blank, touch the Next button to record the blood glucose level.

Back **Next**

...and here is a screen from the sequence on proper insulin injection:



Injecting insulin

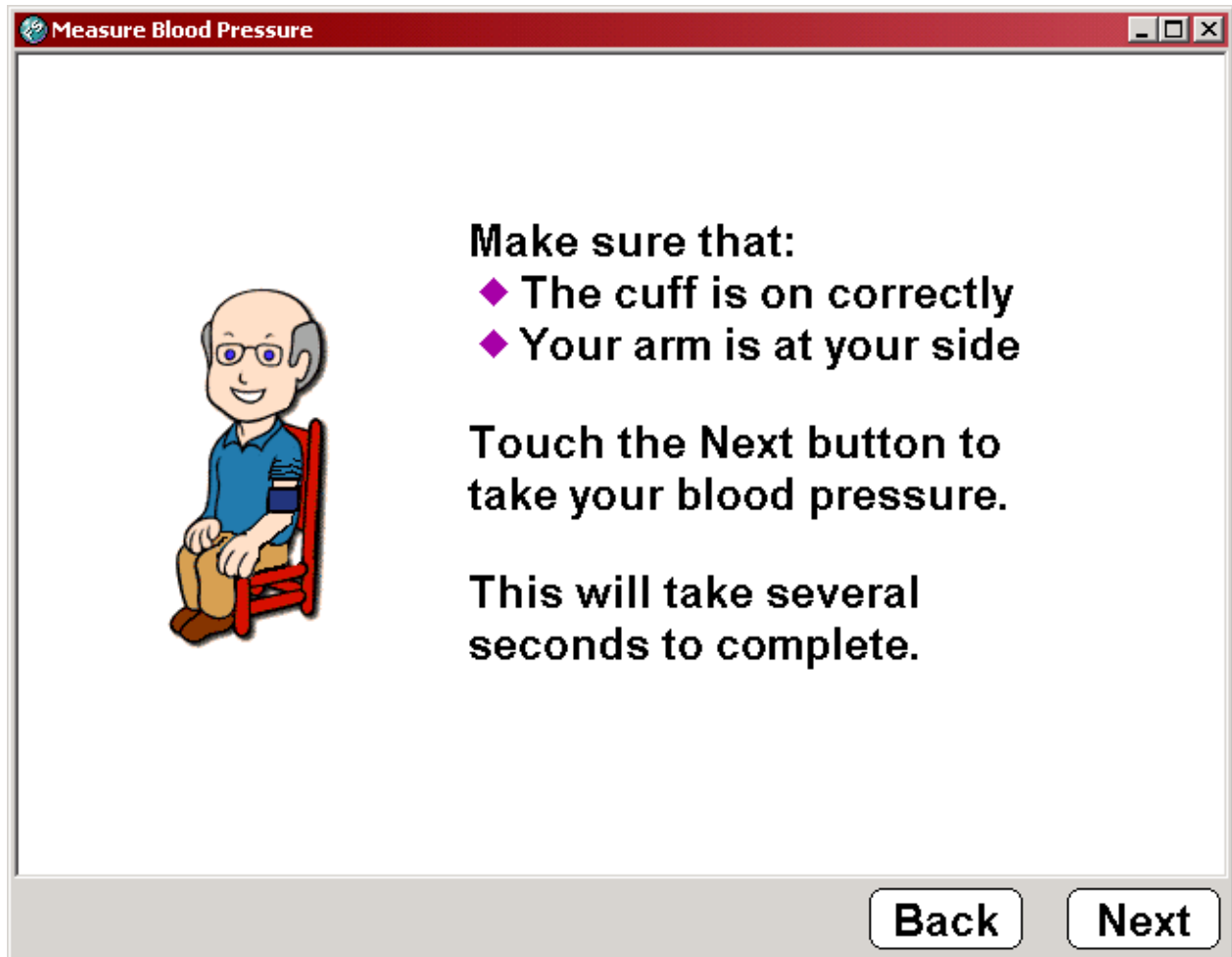


Let go of the injection site and hold the plunger, slowly pull it back to see if any blood appears.

If blood does appear, throw everything away and start over.

Back **Next**

The screen below is part of the sequence on proper blood pressure measurement:



Measure Blood Pressure

Make sure that:

- ◆ The cuff is on correctly
- ◆ Your arm is at your side

Touch the Next button to take your blood pressure.

This will take several seconds to complete.

Back **Next**

Self-Care

well@home encourages self-care activities by the patient:



Learn about foot care



Minor injuries such as cuts blisters, burns, or ingrown toenails can lead to serious complications.


Therefore, you should inspect your feet daily.

Back **Next**

Additional self-care information:



About foot care



Wash your feet daily only with warm water and soap.

Pat your feet dry, especially between the toes.

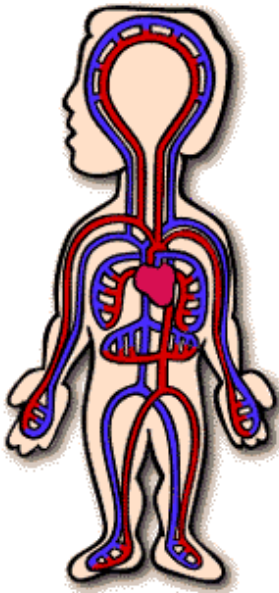
Do not use heating pads iodine epsom salts or alcohol when caring for your feet.

Back **Next**

Nutritional Compliance

well@home encourages compliance with the nutritional program ordered for each patient:

About meal planning

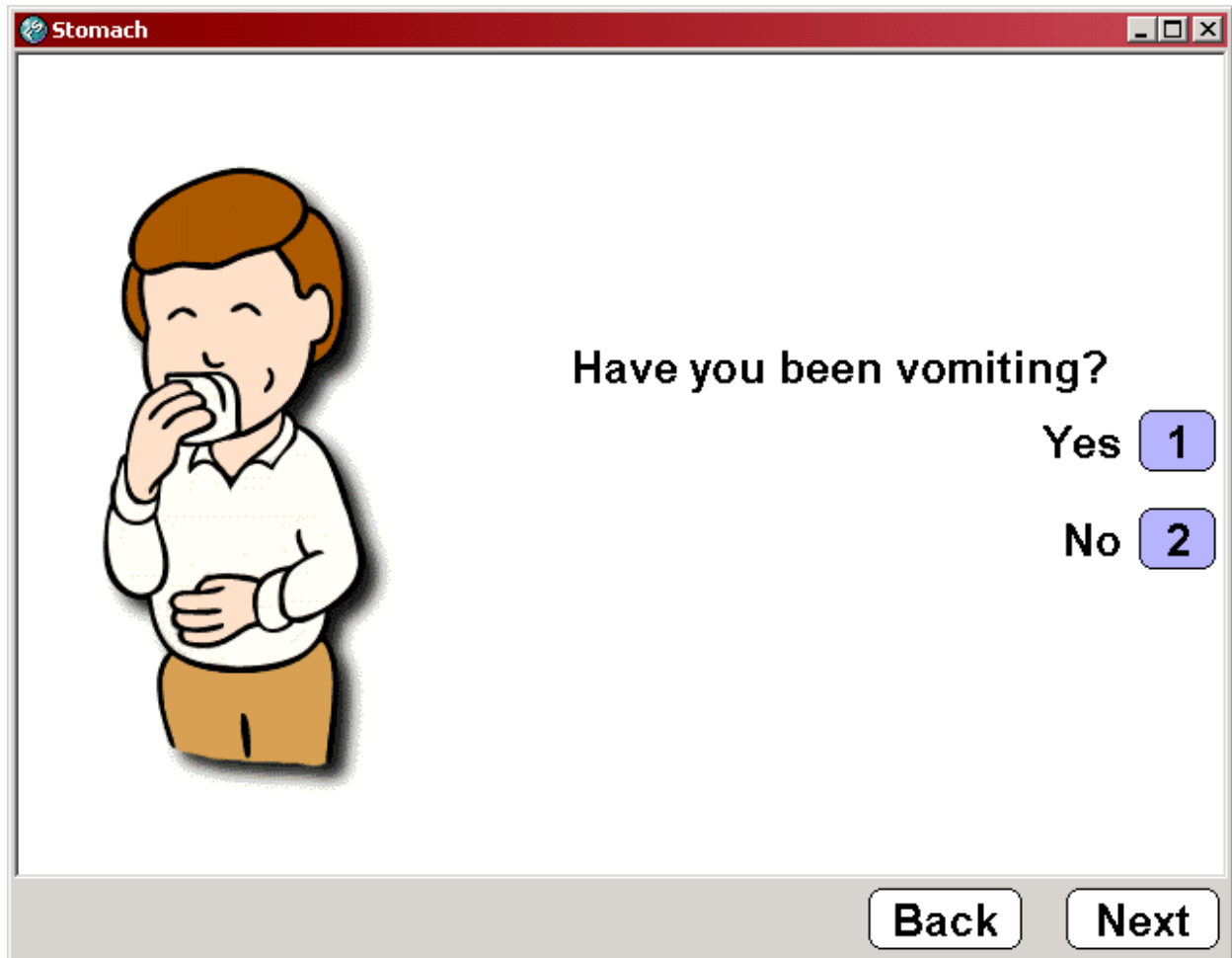


A diet high in fat and cholesterol increases your risk of developing heart disease.


Back Next

Self-Reporting of Clinical Status and Health Problems

Patients are able to self-report symptoms via **well@home** as they occur, therefore improving the accuracy of this subjective information:



Stomach



Have you been vomiting?


Yes 1

No 2

Back Next

Additional symptom self-reporting:

Breathing Problems



Do you have shortness of breath?


Yes 1

No 2

Back **Next**

...and contributing to early detection of potentially serious manifestations of the patient's chronic disease:

Foot Problems



Do you have foot pain?

Yes 1

No 2

Back **Next**

The well@home chart

Every patient activity and all information collected from patients and/or physiologic measurement devices is stored in an electronic chart which is periodically transmitted to a web server as information is collected. This information can be reviewed via the web browser management system or can be transferred into a client operated database.



Patsy Patient

Flowsheet

[Well.at.Homepage](#) | [Log Off](#)
[Flowsheet](#) | [Chart](#) | [Orders](#) | [Schedule](#) | [Education](#) | [Pillbox](#) | [Contributors](#) | [Alert rules](#)

Account#: P-FDB4Test
 Birth Date: 12/00/1934
 Gender: Female

[Previous](#)

	09/16	09/17	09/18	09/19	09/20	Yesterday	Today
Blood glucose	125 ?	? ?	? ?	? ?	114 ?	? ?	118 ?
Blood pressure	127/90 ?	? ?	? ?	? ?	132/91 ?	? ?	118/75 ?
Pulse Ox	96/50 ?	? ?	? ?	? ?	98/63 ?	? ?	98/57 ?
Temperature	X ?	? ?	? ?	? ?	X ?	? ?	X ?
Weight	186 ?	? ?	? ?	? ?	182 ?	? ?	182 ?
Capoten 50 mg Oral Tablet	✓ ?	? ?	? ?	? ?	✓ ?	? ?	✓ ?
Lasix 80 mg Oral Tablet	✓ ?	? ?	? ?	? ?	✓ ?	? ?	✓ ?
Valium 2 mg Oral Tablet	✓ ?	? ?	? ?	? ?	✓ ?	? ?	✓ ?
Vit A-C-E-Lutein-Zinc-Copper 7,160 unit Oral Capsule	✓ ?	? ?	? ?	? ?	✓ ?	? ?	✓ ?

- ? Item scheduled to be done, but compliance not reported
- +/-/= Symptom reported better(+)/worse(-)/same(=) (mouse-over for details)
- ✓ Scheduled item was performed
- * This order began or the frequency for this order was changed during the dates being viewed
- X Non-compliance

Web-based Patient Flowsheet

Alerts

Clearly, in-home technologies like **well@home** are capable of generating more clinical information than can be manually reviewed. Moreover, the vast majority of collected information is entirely routine and requires no action. To deal with both issues, **well@home** contains a system of clinical alerts that can be programmed for each patient. Based on the information collected from the patient, these alerts can:

1. create a list of situations requiring review
2. cause the **well@home** device to instruct the patient to call someone
3. generate an electronic message

