## **Diabetes Prevention**

• **Preventing Diabetes** -- On AAA Home, the hyperlink beside the LESS Initiative hyperlink.

Preventing Diabetes is the extension of the LESS Initiative and should be completed as part of it.



• When Preventing Diabetes is accessed, the pop-up entitled "Recommendations to Delay or Prevent Diabetes" is automatically launched. This pop-up contains the recommendations for screening for diabetes.

**NOTE:** That once this template has been closed, you must click on the "Screening Recommendations" hyperlink to return to the template. The pop up actives only on the opening of the Preventing Diabetes template.

- There are three categories of screening recommendations:
  - 1. Those who are >45 years of age are **recommended** to be screened
  - 2. Those who are >45 years of age and who have a BMI > 25 are **required** to be screened
  - 3. Those who are 25 and who have anyone of four risk factors -- hypertension, hypercholesterolemia, family history of diabetes, non-Caucasian -- are **required** to be screened.

Recommendations to belay or Prever	It Diabetes
viduals at high risk for developing diabetes need to become aware of the benefits of n egular physical activity.	nodest weight loss and particip
reening Recommendations for Pre-Diabetes (IFG, IGT)	
Patients > 45 years of age	(recommended)
Patients > 45 years of age with a BMI > 25	(required)
Patients < 45 years of age, BMI >25 plus any one of the following risk factors	(required)
Yes C No Family history of diabetes?	
Yes No Non-Caucasian ethnicity?	
C Yes C No Hypertension?	
🔲 In individuals with normoglycemia, rescreening at 3-year intervals is sufficient.	
w To Screen	
Fasting Plasma Glucose Test Order The	se Test(s)
2-hour OGTT (75 gram glucose load) (if FPG > 110)	

- The template has another section entitled "How to Screen?"
  - 1. The first way is with a Fasting Blood Glucose (FBG), which requires a 12-hour fast

2. The second way is with a 2-hour Oral Glucose Tolerance Test (OGTT).

Diabetes Screen	×
Recommendations to Delay or Preven	t Diabetes
Individuals at high risk for developing diabetes need to become aware of the benefits of m in regular physical activity.	nodest weight loss and participating
Screening Recommendations for Pre-Diabetes (IFG, IGT)	
Patients > 45 years of age	(recommended)
Patients > 45 years of age with a BMI > 25	(required)
Patients < 45 years of age, BMI >25 plus any one of the following risk factors	(required)
<ul> <li>Yes</li> <li>No</li> <li>Family history of diabetes?</li> <li>Yes</li> <li>No</li> <li>Non-Caucasian ethnicity?</li> <li>Yes</li> <li>No</li> <li>Dyslipidemia?</li> <li>Yes</li> <li>No</li> <li>Hypertension?</li> </ul> In individuals with normoglycemia, rescreening at 3-year intervals is sufficient.	
How To Screen  Fasting Plasma Glucose Test  C 2-hour OGTT (75 gram glucose load) (if FPG > 110)	ise Test(s)
Positive test results should be confirmed at another office visit o	n another day.

- You can order the FBG, by clicking on the button, "Order these tests"
  - 1. When you click "Order these tests," a pop-up is launched which asks if the patient has been fasting for 12 hours.
  - 2. If the answer is, "yes,: the test is ordered and added to charge posting.
  - 3. If the answer is, "no," the test is sent to the **Future Labs** template.
  - 4. In order for the Future Lab function to work, you must then access the Future Labs template from AAA Home and complete the date and the provider information before e-mailing the Future Lab template to the laboratory and to charge posting.

Diabetes Screen

Recommendations to Delay or Prever	t Diabetes
Individuals at high risk for developing diabetes need to become aware of the benefits of r in regular physical activity.	nodest weight loss and participating
Screening Recommendations for Pre-Diabetes (IFG, IGT)	
☐ Patients > 45 years of age	(recommended)
Patients > 45 years of age with a BMI > 25	(required)
Patients < 45 years of age, BMI >25 plus any one of the following risk factors	(required)
<ul> <li>✓ Yes</li> <li>✓ No</li> <li>✓ Family history of diabetes?</li> <li>✓ Yes</li> <li>✓ No</li> <li>✓ No</li> <li>✓ Yes</li> <li>✓ No</li> <li>Ø Dystipidemia?</li> <li>✓ Yes</li> <li>✓ No</li> <li>Ø Hypertension?</li> </ul>	
How To Screen	
Fasting Plasma Glucose Test Order The	se Test(s)
2-hour OGTT (75 gram glucose load) (if FPG > 110)	
Positive test results should be confirmed at another office visit of	n another day.
OK Cancel	

Now that you have finished with the ordering of the screening test for diabetes, you can close the Screening Recommendations pop-up by clicking the OK button and review the other information on the Preventing Diabetes Template.

• The top section on the Preventing Diabetes Template has a series of eight hyperlinks which will be discussed below

×

Height       72.00       Weist       00       FPG       Check for New Labs       Inportance of Giveenic Index         Weight       00       Hips       00       FPG       Cholesterol       150       06/06/2007       Giveenic Index         BMI       Ratio       00       2-Hr OGTT       LDL       7.7       Houser, Ensuin, and Meals         BMR       7       0       7.7       Triglycerides       175       06/06/2007       Hunser, Fat, and Fav Foods         BMR       7       0       7.7       Triglycerides       175       06/06/2007       Hunser, Fat, and Fav Foods         BMR       7       0       7.7       Triglycerides       175       06/06/2007       Hunser, Fat, and Fav Foods         BMR       7       0       7.7       Triglycerides       175       06/06/2007       Hunser, Fat, and Fav Foods         Protein Req       7       0       7.7       Triglycerides       7.7       Provider Information         Givcentic Index       0       7.7       Triglycerides       17.8       Provider Information         Givcentic Index       No       No       Print All       Provider Information       Sevenic Index and Prevention         Hypertriglyceridemia       Hoothelia	Field Signs       Fasting Lab Results       CHeck for New Labs       Innoctance of Givcemic Index         Height       72.00       Weist       00       FPG       Cholesterol       150       0606/2007       Application Bids         BMI       Risto       00       77       HDL       77       Bids       Bids       Free       Bids       Bids       Bids       Bids       Free       Bids       Bids       Bids       Free       Bids	Prediabetics have pattern of CV risk predominantly obs with increased HC insulin, i.e, insulin r	an atherog factors wh erved in pro MA IR and esistance.	ienic ich are idiabetics fasting	Diagnosis Diabetes <u>Pre-Diabete</u> None	1	Fasting > 126 m 100 - 12 < 100 m	g/dL g/dL g/dL g/dL	Cas > 20 140 < 14	ual Test 0 mg/dL - 199 mg/dL 0 mg/dL	Patie Sha Carb Sha Iakir You More	Int Information is Pre-Dubetes? Confusion To Do About II a Steps To Prevent Have The Power Than 50 Ways To Preven
BMI       Ratio       00       2-Hr OGTT       LDL       7.7         Body Fet       22       Blood Pressure       0       7.7       Disbotic Education Rule       Magnesium       7.7         BMR       7       0       7.7       Disbotic Education Rule       Magnesium       7.7         Protein Req       7       0       7.7       Disbotic Education Rule       Provider Information         reatment       Diabetic Education Referral (Double-Click)       Provider Information       Givenic Index and Prevention         Insulin Resistance       Homocrysteine       Priority       Referring First       Referring Last       Providicitions         Hypertrigtyceridemia       Endothelial Dystunction       4       Summary of Studies       Uterstyle and Diabetes	BMI       Ratio       00       2-Hr OGTT       LDL       11         Body Fet       22       Blood Pressure       0       11       Triglycerides       175       06/06/2007         BMR       //       0       11       Triglycerides       175       06/06/2007         Protein Reg       //       0       11       Triglycerides       175       06/06/2007         Protein Reg       //       0       Proteiction Rule       Magneskum       11         Protein Reg       //       0       DM Prediction Rule       Magneskum       11         Protein Reg       //       0       Diabetic Education Referral (Double-Click)       Provider Information         Restistance       Homocrysteine       Priority       Reterring First Reterring Last Reterral       Physical Activity         Insulin Resistance       Homocrysteine       Priority       Reterring First Reterring Last Reterral       Physical Activity         Hyperfrigtyceridemia       Endothelial Dysfunction       +       Summary of Studies       Summary of Studies         nks       maxin Resistance Hyperfension Mant       Weight Mant       Exercise Lipids Mant       Metabolic Syndrome Smoking Cesastion       Hyselion Answers	Height 72	2.00 vVai 0 Hips	st []	00 1	PG	7	Cholesterol HDL	150	06/06/2007	Appl	ing the Glycemic Index
Provider Information       reatment     Diabetic Education Referral (Double-Click)     Provider Information       Insulin Resistance     Homocysteine     Priority     Referring First     Referring Last     Referral       Impaired Fasting Glucose     hsCRP     Behavior Modifications     Behavior Modifications       Hypertrighyceridemia     Endothelial Dysfunction     Iteration     Summary of Studies	Insulin Resistance     Homocysteine     Priority     Referring First     Referring Last     Referral       Insulin Resistance     Homocysteine     Priority     Referring First     Referring Last     Referral       Hypertrighyceridemia     Endothelial Dysfunction     Image: Construction of Studies     Insulin Resistance     Human	BMI Dody Fat 2.	Rabi	d Pressure	00 2	Hr OGTT	/ Rule	LDL Triglyceride Magnesium	\$ 175	1 1 06/06/2007 1 1	Hype Hype Huno Print	rinsulnemia er, hsulin, and Meals er, Fat, and Fay Foods All
Impaired Fasting Glucose hsCRP Hypertrighyceridemia Endothelial Dysfunction	Impaired Fasting Glucose hsCRP Hypertrigtyceridemia Endothetial Dystunction  Impaired Fasting Glucose hsCRP  Behavior Modifications Summary of Studies Ufestyle and Diabetes Uf	reatment Insulin Resist	ance	Homo	cysteine	Diabetic E	ducation	Referral (Do ring First R	uble-Clic	: <b>k)</b> ast Referral	Prov Ghyo Weig Divus	ider Information anic Index and Prevention ht Loss Ical Activity
	nks nsulin Resistance Hypertension Mant Melaht Mant Exercise Lipids Mant Metabolic Syndrome Smoking Cessation Uscend Fet	Impaired Fasting Hypertriglycer	Glucose demia	h: Endothelia	sCRP I Dysfunction	•					Esha	vior Modifications nary of Studies tyle and Diabetes

• The second section of the template has a notation about the atherogenic nature of prediabetes, and the criteria for establishing diabetes, pre-diabetes and normal plasma glucose levels.

Could Preclabetics I pattern of CV predominantly with increase insulin, i.e, ins	You Have I have an att risk factor observed d HOMA IR ulin resista	Diabetes a herogenic s which a in prediab and fastir ince	nd Not Even re etics 19	Diagnosis Diabetes Pre-Diabet None	Reducing 22	<u>Your Risk</u> Fastin > 126 100 - 1 < 100	OW Risk of De Ig Test Igidi. 25 mg/di. Igidi.	Car > 2 140 < 14	Disber sual T 00 mg/ 1 - 199 40 mg/	tes est dL mg/dL dL	Document Patient Information what is Pre-Distances? Carlo Confusion what To Do About II Taking Steps To Prevent You Have The Power	Ð
Vital Signs Height Weight BMI Body Fat BMR Protein Req Treatment	72.00 .00 22	•Vaist Hips Ratio Blood Pre	00 00 00 00		Asting Lal FPG 2-Hr OGT 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	o Results	Check fo Cholesterol HDL LDL Trigtycerides Magnessum	r New L 150	abs 064 11 064 11	06/2007 / / 06/2007 /	Inportance of Streemic Index Applying the Glycemic Index Streemic Load Insulin - Friend or Foe Hyperinsulin, and Meals Hunger, Insulin, and Meals Hunger, Fat, and Fay Foods Print All Provider Information Glycemic Index and Prevention	8
Insulin R Impaired Fas Hyperfrigi	esistance ting Gluco yceridemia nce Hyper	se En	Homocys heCR tothetial Dy	teine P stunction <u>it Maint</u> E		y Rote	Aetabolic Syndr	ome Sr	noking	Referral	Visiofit Loss Physical Activity Behavior Modifications Summery of Studies Lifestyle and Diabetes Visceral Fet Insulin Resistance Summary Questions and Answers	

- The third section has the patient's vital signs and lab values.
  - 1. There is a button for importing the most recent lab values.
  - 2. There is also the results of the **Diabetes Mellitus Prediction Rule** (see below). If the score of the Prediction Rule is 4 or higher, the patient has a high probability of having Impaired Glucose Tolerance (IGT) which is one of two pre-diabetic conditions (along with Impaired Fasting Glucose).

Prediabetics have an athero attern of CV risk factors wi predominantly observed in p with increased HOMA IR and navim Le insulin resistance	genic Dia hich are Dial rediabetics Pre f fasting Nor	gnosis betes -Diabetes 10	Fasting Test > 126 mg/dL 100 - 125 mg/dL < 100 mg/dL	Cas > 20 140 < 14	ual Test 0 mg/dL - 199 mg/dL 0 mg/dL	Patient Information What is Pre-Diabetes? Carb Confusion What To Do About It Taking Steps To Prevent You Have The Power
tal Signs Height 72.00 We Neight 0.00 Hip BM Rat Body Fat 22 Bio BMR Protein Reg	est 00 \$ 00 to 00 od Pressure /	Fasting Lab Re FPG 7 2-Hr OGIT 0 7 0M Predicton ×4 the	suits Chec Choleste HDL LDL Triglycer Rule doubles risk of DM	k for New Li rol 150 ides 175	06/06/2007 11 11 06/06/2007 11	Insortance of Okcenic Index Applying the Okcenic Index Okcenic Lond Insuln - Friend or Foe Hyperinsulnemia Hyperinsuln. and Meals Hunger, Insulin, and Meals Hunger, Fat, and Fay Foods Print All Provider Information
eatment Insulin Resistance Impaired Fasting Glucose Hypertrigtyceridemia hks isulin Resistance Hypertens	Homocysteine hsCRP Endothelial Dysfur	Diabetic E	Aucation Referral	(Double-Clin Referring L	sk) ast Referral	Strucenic Index and Prevention Weight Loss Physical Activity Behavior Modifications Summary of Studies Lifestvie and Diabetes Visceral Fat Insulin Resistance Summary Questions and Answers

- The fourth section has treatment recommendations and methods for treating:
  - 1. Insulin Sensitivity
  - 2. Impaired Fasting Glucose (pre-diabetes)
  - 3. Hypertriglyceridemia
  - 4. Homocysteine
  - 5. hsCRP
  - 6. Endothelial Dysfunction

Screening Recommendator Could You Have Diabe Prediabetics have an atherog pattern of CV risk factors wh predominantly observed in pr with increased HOMA IR and	as <u>Predicting Dia</u> tes and Not <u>Even</u> genic D ich are D ediabetics <u>E</u> fasting <u>E</u>	betes Screening in Snow It2 Reducing lagnosis labetes re-Diabetes	Your Risk Your Risk Fastin > 126 r 100 - 1	nce (EG.and.) OW Risk of Dev g Test rg/dL 25 mg/dL	21 Qur eloping ( Case > 200 140 -	rent Strategies Inductes Jang Test Jang Kill, 199 mg Kill,	Return Document Patient Information What is Pre-Debetes? Carb Confusion What To Do About II Taking Steps To Prevent	Ð
Vital Signs Height 72.00 Was Weight 00 Hips BMI Rab Body Fet 22 Bloc BMR Protein Reg	st 00 5 00 0 100 0 Pressure 7	Fasting Lat FPG 2-Hr OGT J0 DM Predict	Results     ///     //     ///     //     //     //     //     //     //     //	Check for Cholesterol HDL LDL Trigtycerides Magneshim	New La	65 06/06/2007 11 11 06/06/2007 11	Note There Power More Than 50 Ways To Prevent Incortance of Givcenic Index Applying the Givcenic Index Givcenic Load Instain - Friend or Foe Hyperinsulnemia Hunger, Instain, and Meals Hunger, Fat, and Fav Foods Print All Provider Information	8
Treatment Insulin Resistance Impaired Fasting Glucose Hypertrigtyceridemia Links Insulin Resistance Hypertensi	Homocyste hsCRP Endothetial Dyst	Mant Exercise La	ie Education y Refe j	Referral (Dou	iterring La	k) sst Referral	Giveenic index and Prevention     Whight Loss     Physical Activity     Behavior Modifications     Summary of Studies     Ufestyle and Diabetes     Visceral Fet     Insulin Resistance Summary     Guestions and Answers	_

These conditions are found in patients with pre-diabetes and diabetes. There is also is a method in this section of the template for sending a referral for diabetes education in those who have prediabetes. All patients with Impaired Fasting Glucose and/or Impaired Glucose Tolerance should be referred to diabetic education classes. This is the first step in a serious effort to prevent them from progressing on to full-blown diabetes mellitus.

To access the referral template, double click just below the field labels but just above the horizontal scroll bar.

Screening Recommendations Could You Have Diabete	Predicting Diabetes is and Not Even Know I	Screening Insulin Resi 12 Reducing Your Risk	stance IEG and LOVY Risk of De	KOT Quin veloping D	ent Strategies abetes	Return Document	
Preciabetics have an atheroge pattern of CV risk factors whic predominantly observed in prec with increased HOMA IR and fa insulin, i.e. insulin resistance.	nic Diagno h are Diabete diabetics asting <u>Pre-Dial</u> None	isis Fas s > 12 betes 100 < 10	ting Test 6 mg/dL - 125 mg/dL 0 mg/dL Check fo	Casu > 200 140 - < 140 vr New Lat	al Test mg/dL 199 mg/dL mg/dL os	Patient Information what is Pre-Dabetes? Carb Confusion what To Do About It Taking Steps To Prevent You Have The Power More Than 50 Ways To Prevent Importance of Generic Index	Ð
Height 72.00 Waist Weight 00 Hips BMI Ratio Body Fet 22 Blood BMR Protein Reg	00 00 Pressure	<sup>2</sup> Double Clic below field Referrals to	Cholesterol HDL ck in the to launch emplate.	150	06/06/2007 / / / / / / 06/06/2007 / /	Applying the Olycemic Index Olycemic Load Insulin - Eriend or Foe Hyperinsultremia Hunger, Insulin, and Meals Hunger, Fat, and Fay Foods Print All	8
Treatment Insulin Resistance Impaired Fasting Glucose Hypertrigtyceridemia	Homocysteine hsCRP Endothelial Dysfunction	Diabelic Educat	ion Referral (Do oferring First Re	uble Click	9 st Referral	Provider Information     Systemic Index and Prevention     Veidht Loss     Physical Activity     Bebavior Modifications     Justimary of Studies     Ufestyle and Diabetes     Visceral Fat     Insuln Resistance Summary	_
1						Questions and Answers	•

Click here to learn How to Complete a Referral

- The fifth section has links for treating the conditions discovered by this review:
  - 1. Insulin Sensitivity
  - 2. Hypertension
  - 3. Weight Management
  - 4. Exercise
  - 5. Lipids Management
  - 6. Metabolic Syndrome
  - 7. Smoking Cessation

Screening Recommendations Pr Could You Have Diabetes an	edicting Diabetes Screen d Not Even Know, 12 Redu	na Insulin Resista cina Your Risk - L	nce IEG and K OVV Risk of Dev	21 Quin eloping Di	ent Strategies Abotes	Document
Prediabetics have an atherogenic pattern of CV risk factors which are predominantly observed in prediabet with increased HOMA IR and fasting insulin, i.e. insulin resistance.	Diagnosis Diabetes tics <u>Pre-Diabetes</u> None	Fastin > 126 ( 100 - 1 < 100 (	g Test ng/dL 25 mg/dL ng/dL	Casu > 200 140 - < 140	al Test mg/dL 199 mg/dL mg/dL	Patient Information what is Pre-Diabetes? Carb Confusion what To Do About It Taking Steps To Prevent You Have The Power Vou Have The Power
Vital Signs Height 72.00 vVaist vVeight 00 Hips BMI Rato Body Fat 22 Blood Pres		Lab Results	Check for Cholesterol HDL LDL Triglycerides	New Lab	s 06/06/2007 // // 06/06/2007	Incortance of Orycenic Index Apphing the Glycenic Index Glycenic Load Insulin - Friend or Foe Hyperinsulinenia Hyperinsulinenia Hyperinsulinenia
BMR Protein Reg Treatment Insulin Resistance Insulin Resistance	/ OM Pri	solution Rule > 4 doubles the risk of D abetic Education riority Refe	Meaneskim M Referral (Dou rring First Ref	ble-Click	) t Referral	Print All Provider Information Givcenic Index and Prevention Weight Loss Physical Activity
Hypertriglyceridemia Ende Links Insulin Resistance Hysertension Mg	othelial Dysfunction	Liokis Marnt N	etabolic Syndro	me Smol	ing Cessation	Summary of Studies     Urlestvie and Diabetes     Visceral Fat     Insulin Resistance Summary     Questions and Answers

The eight hyperlinks at the top of the Preventing Diabetes Template are:

- 1. Screening Recommendations discussed above
- 2. **Predicting Diabetes** This calculates the **Diabetes Prediction Rule** results and gives the objective, conclusion and interpretation of the study on the basis of which this rule was developed.
  - a. The lab values and demographic data required are automatically displayed on this template.
  - b. If the value is 4 or greater, then the patient has a significant potential of having Impaired Glucose Tolerance which is a pre-diabetic condition further along toward diabetes than Impaired Fasting Glucose.

				5555
bjective				
To create a predict thos	simple prediction rule that e at risk for diabetes.	could perform as wel	as the 2-hour post cha	illenge plasma glucose test to
onclusion				
<ol> <li>Advar</li> <li>female</li> <li>fastin</li> <li>triglyc</li> </ol>	nced age, e sex, g plasma glucose and erides			
were able t	o predict adults at risk for o	liabetes equally as w	ell as the 2-hour Post cl	hallenge Plasma Glucose (PCPG)
	Sex [	M		
	Age [	39 yrs	Calculate >>	
	Triglycerides	175 mg/dL		
	Fasting Glucose	mg/dL	Last Updati	ed
terpretatio	1			
A score of clinicians to	4 or higher doubled the like better identify individuals v	lihood of an abnormal with abnormal glucose	post challenge glucose tolerance, who should	test result. This rule could help be targeted for interventions to

## 3. Screening Insulin Resistance

- a. The first section on this pop-up is "The Following are factors which increase the likelihood of insulin resistance."
  - 1. Because the information is capture elsewhere in the EMR, several of the elements are automatically checked:
    - a. age demographic from EPM
    - b. waist size demographic from Nursing Template
    - c. BMI calculated on Nursing Template
    - d. ethnicity demographic from EPM
    - e. family history of diabetes demographic from Extended Family History at the bottom of the History Template
    - f. hypertension demographic from Extended Family History g. CVD – demographic from Extended Family History

x

- 2. Because the information is not captured elsewhere in the EMR, several of the elements are not automatically checked and must be noted by the nurse and/or healthcare provider:
  - a. sedentary lifestyle
  - b. history of gestational diabetes
  - c. history of glucose intolerance
  - d. history of CAD
  - e. history of hypertension
  - f. history of polycystic ovary syndrome
  - g. history of acanthosis nigricans.

	actors which increase the	likelihood of insulin resistance
C Yes C No	Diagnosis of CVD, hyperter	sion, PCOS, NAFLD, or acanthosis nigricans?
C Yes C No	Non-Caucasian ethnicity?	
· Yes No	Family history of diabetes, h	hypertension, or CVD?
C Yes C No	Personal history of gestatio	nal diabetes or glucose intolerance?
C Yes C No	Sedentary Intestyle?	
C Yes C No	Elevated weist circumferen	ca2 (Malass/10" Famalass35")
C Yes C No	Patient over 40?	ue: (males=40 (i cindics=55 )
C Yes C No C Yes C No	Elevated blood pressure? Elevated glucose levels?	Fasting 11 2 Hr OGTT 0 11

- b. The second section is "**The following are abnormalities of the insulin resistance syndrome.**" The four elements of this section are automatically completed:
  - 1. Triglycerides
  - 2. HDL
  - 3. blood pressure

4. glucose level

	Screening for Insulin Resistance	
The following are f	actors which increase the likelihood of insulin resistance	
C Yes C No C Yes C No	Diagnosis of CVD, hypertension, PCOS, NAFLD, or acanthosis nigricans Non-Caucasian ethnicity? Family history of diabetes, hypertension, or CVD? Personal history of gestational diabetes or glucose intolerance? Sedentary lifestyle? Elevated BMI? Elevated waist circumference? (Males>40", Females>35") Patient over 40?	5?
The following are a	abnormalities of the insulin resistance syndrome	1
• Yes C No	Elevated triglycerides? 175 06/06/2007	L
C Yes C No	Low HDL cholesterol?	L
C Yes C No	Elevated blood pressure?	L
C Yes C No	Elevated glucose levels? Fasting 11 2 Hr OGTT 0 11	L
lased on the risk f	actors and abnormalities indicated above	
Conclusion?		٦
	4	

- c. The third section is "Based on the risk factors and abnormalities indicated above...".
  - 1. When the "**Conclusion**" button is clicked, a conclusion appears in the window which states whether or not this patient is likely to have insulin resistance or not.
  - 2. The presence of a high potential for insulin resistance places the patient at higher risk of developing type 2 diabetes.

he following are f	actors which increase the	likelihood of insulin resistance
C Yes C No C Yes C No	Diagnosis of CVD, hyperter Non-Caucasian ethnicity? Family history of diabetes, f Personal history of gestatio Sedentary lifestyle? Elevated BMI? Elevated waist circumferen Patient over 40?	nsion, PCOS, NAFLD, or acanthosis nigricans? hypertension, or CVD? nal diabetes or glucose intolerance? ce? (Males>40", Females>35")
ne rollowing are a	ionormalities of the Insulin	Fresistance syndrome
Yes C No	Elevated triglycerides?	175   06/06/2007
C Yes C No	Low HDL cholesterol?	
C Yes C No	Elevated blood pressure?	
C Yes C No	Elevated glucose levels?	Fasting //
and on the rick f	astoro and abnormalitics is	adiasted shows
asca on the risk i		
Conclusion?		

- 4. **IFG and IGT** the fourth hyperlink at the top of Preventing Diabetes gives the definitions and significance of:
  - a. Impaired Fasting Glucose (IGF) and
  - b. Impaired Glucose Tolerance (IGT).
  - c. This pop-up is for information only.



- 5. Current Strategies the fifth hyperlink at the top of Preventing Diabetes. This launches a pop-up entitled Current Strategies to Prevent Diabetes.
  - a. There are four elements to this pop-up
    - 1. Preventing Diabetes Type 1 by preventing gestational exposure to rubella
    - 2. Encourage present feeding and minimize exposure to cow's milk in first six months, particularly if a first-degree family member has type 1 diabetes.
    - 3. Do not stop insulin if type 1 diabetes goes into remission
    - 4. Low fat diet, active lifestyle and ideal body weight for those with relatives with type 2 diabetes.
  - b. There is a box which when checked launches a document with more information on these four prevention strategies.

×

Diabetes Currents	×
Current Strategies for the Prevention of Diabetes	
For type 1 diabetes, prevent gestational exposure to rubella	
Encourage breast feeding and minimize early exposure to cows milk protein during the first six months of life particularly if a first-degree relative has type 1 diabetes	
For individuals with newly diagnosed type 1 diabetes maintain intensive insulin therapy at the time of diagnosis, and do not stop insulin therapy if a spontaneous remission occurs (but reduce dose to prevent hypoglycemia).	
For individuals with relatives with type 2 diabetes, eat a low fat diet, maintain an active lifestyle, and keep body weight within ten percent of their ideal body weight.	
Select this box and click OK to view additional information.	
OK Cancel	

## 6. Could You Have Diabetes And Not Even Know It? Is the sixth hyperlink.

- a. In response to seven questions, a point total is calculated.
- b. The conclusion will tell if a person is at high or low risk of diabetes.

1. My weight is abnormal as indicated by my BMI or body fat percentage?	C Yes C No
2. I am under 65 years of age AND I get little or no exercise during a usual day	/? C Yes C N
3. I am between 45 and 65 years of age?	C Yes C No
4. I am 65 years old or older?	C Yes C No
5. I am woman who has had a baby weighing more than 9 pounds at birth?	C Yes C No
6. I have a brother or sister with diabetes?	C Yes C No
7. I have a parent with diabetes?	C Yes C No
	Clear All
oint Total Conclusion	

7. **Reducing Your Risk** is the seventh hyperlink. It identifies seven lifestyle and therapeutic measures which a person can undertake to decrease the risk for developing diabetes.

Diabetes Reduce	×
Reducing Your Risk	
You may reduce your risk of developing diabetes, by up to 58 percent, through	
I modest weight loss T the addition of 30 minutes of daily exercise	
Increased physical activity, which raises fitness levels, can help	
<ul> <li>* lower blood pressure</li> <li>* lower cholesterol</li> </ul>	
* reduce the risk of heart attack and stroke * relieve stress	
<ul> <li>* improve the quality of life by strengthening the heart, muscles, and bones.</li> </ul>	
OK Cancel	

8. Low Risk of Developing Diabetes is the eighth hyperlink. This pop-up identifies eight characteristics of those who are known to have a low risk of developing diabetes.

Diabetes Lowrisk	×
Low Risk of Developing Diabetes	
Patients with a low risk of diabetes exhibit the following	
* have a low BMI	
* consume a diet high in cereal fiber	
* consume a diet high in polyunsaturated fat	
* consume a diet low in trans-fatty acids	
* comsume foods with a low glycemic index	
* engage in moderate to vigorous physical activity for at least 30 minutes each day	
* do not smoke	
* do not consume more than 5 grams of alcohol per day	
OK Cancel	

Concluding the Diabetes Prevention Template

- The final step to completing the use of the Preventing Diabetes template is the creation of a note by single clicking the **Document** button.
  - 1. This will generate a document that can then be given to the patient to help them understand clearly how they can avoid diabetes.
  - 2. Remember: the best way to treat diabetes is still not to get it.

Could You Preciabetics hav pattern of CV ris predominantly of with increased H insulin, i.e, insulin	ve an ath k factors iserved i iOMA IR n resistar	erogenic which are n prediabeti and fasting nce.	Not Even Know Diagn Cs Pre-Dis None	A2 Reducin osis os sbotos	• Your Risk    Fastir > 126  100 - 1 < 100	. <mark>OV/ filsk of De</mark> ng Test ng/dL 125 mg/dL ng/dL	Cas > 20 140 < 14	Disbetes sual Test 00 mg/dL 1 - 199 mg/dL 40 mg/dL	Document Patient Information What is Pre-Distortes? Carb Confusion What To Do About II Taking Steps To Prevent You Have The Power More Then 50 Ways To Prevent	Ð
Vital Signs Height [ Weight ] BMI [ Body Fet ] BMR ] Protein Reg ]	72.00	Waist Hips Ratio Blood Press	00 00 00 100	Fasting La FPG 2-Hr OGT 0 DM Prede	b Results	Check fo Cholesterol HDL LDL Trigtycerides Magnessum	150	abs 06/06/2007 11 06/06/2007 11	Importance of Givcenic Index Applying the Givcenic Index Givcenic Load Insulin - Friend or Foe Hyperinsulnemia Hunger, Insulin, and Meals Hunger, Fat, and Fav Foods Print All Provider Information Givcenic Index and Prevention	Ð
Insulin Resi Impaired Fastin Hyperfrightor	stance g Glucos eridemia e Huserl	ension Man	tomocysteine hsCRP helial Dystunctio	Exercise	Ry Ref	Aetabolic Syndr	ome Sr	noking Cessation	Vieldhi Loss Physical Activity Behavior Modifications Summary of Studies Lifestyle and Dinbetes Visceral Fet Insuln Resistance Summary Guestions and Answers	

- There is also a list of 13 documents for patient education on diabetes prevention.
  - 1. There are three hyperlinks to the right of the document hyperlinks.
  - 2. The first hyperlink will auto print the first six documents.
  - 3. The second hyperlink will print the next three.
  - 4. The last hyperlink will print the next four.

Prediabetics have an a pattern of CV risk factor predominantly observe with increased HOMA	therogenic rs which are d in prediabetics R and fasting	Diagnosis Diabetes <u>Pre-Diabete</u>	Fa > 1 2 10	sting Test 26 mg/dL 0 - 125 mg/dL	Cas > 20 140	sual Test 00 mg/dL - 199 mg/dL	Patient Information What is Pre-Dabetes? Carb Confusion What To Do About It Taking Steps To Prevent
Insulin, i.e., insulin resis ital Signs Height 72.00 Weight 00 BMI 0 Body Fat 22 BMR 0 Protein Reg reatment Insulin Resistance	vVaist Hips Ratio Blood Pressur Hor	None Fa	<1 sting Lab Result FPG 7/7 2-Hr OGTT 0 7/7 0 7/7 0 4 Prediction Rule > 4 dout the risk o Diabletic Educe Priority 0	00 mg/dL Cholesterol HDL LDL Trigtyceride Magnesium Mes of DM Referring First IR	<1/	00 mg/dL abs   06/06/2007 11 06/06/2007 11 06/06/2007 11 ck) ast Referral	You Have The Power More Than SO Ways To Prevent Insortance of Glucenic Index Applying the Glucenic Index Glucenic Load Insuln - Friend or Foe Hyperinsulnemia Hunger, Insuln, and Meals Hunger, Fat, and Fey Foods Print All Provider Information Glucenic Index and Prevention Weight Loss Bluegie & Artholic
Inpaired Fasting Gluc Hypertriglyceridem Inks Insulin Resistance Hype	ose ia Endothe ertension Marti	hisCRP Ital Dysfunction	ercise Liskis Man	I Metabolic Synd	ome Sr	noking Cessation	Behavior Modifications     Behavior Modifications     Summary of Studies     Utestyle and Diabetes     Visceral Fat     Insulin Resistance Summary     Guestions and Answers

• Then there are nine documents for provider education

Pre	ventii	ng Dia	abete	S Potic	ent Robe	n )	Test Jr				1121222		Return	4
Could	You Have	Ciabetes e	nd Not Eve	en Kinzwy 82	Reducing	Your Risk	LOW Risk of	f Devi	eloping (	Ciabeta			Document	
Prediabetics have an atherogenic Diag pattern of CV risk factors which are predominantly observed in prediabetics with increased HOMA IR and fasting insulin, i.e, insulin resistance. None		Diagnosis Diabetes <u>Pre-Diabet</u> None	sis Fasting Tes ) > 126 mg/dL edgs 100 - 125 mg < 100 mg/dL			est Casual Test L > 200 mg/dL ng/dL 140 - 199 mg/dL L < 140 mg/dL		st g/cll.	LE SIGISHHH	atient Information what is Pre-Diabetes? arb Contusion what To Do About It aking Steps To Prevent out Have The Power for The OWner To Prevent	Ð			
Vital Signs				F	asting La	b Results	Cher	ck for	New La	abs		10	nportance of Glycerric Index	В
Height vVeight	72.00	vVaist Hips	00	=	FPG	11	HDL	rol	150	06/06	/2007	0.015	oplying the Glycemic Index Rycemic Lond Isulin - Friend or Foe	Ð
Body Fet BMR	22	Blood Pro	essure /		0 DM Predic	1 / /	Triglycer Magnesi	rides um	175	06/06	/2007	1111	unger, Insulin, and Meals lunger, Fat, and Fav Foods	
Protein Req	i					> 4 double the risk of	es I DM					2	rint All Provider Information	٦
Treatment					Diabe	tic Educati	ion Referral	(Dou	ble-Clic	ck)		Q S	Rycemic Index and Prevention Veloht Loss	
Insulin Re	esistance		Homocy	steine	Priori	ty R	eterring First	Ret	ferring L	ast R	eterral	10	hysical Activity	
Hypertrigh	yceridemi	a En	dothelial D	ver ysfunction	1	1		-		-	_		enavior Modifications Commany of Studies	
Links Insuin Resistar	nce Huse	rtension M	ant Yek	ért Marrit - El	vercite L	isikis Mant	Metabolic St	<u>indro</u>	me Sm	xoking.C	essation	District.	Itestyle and Diabetes Asceral Fat Isufin Resistance Summary Auestions and Answers	] -
*												1		*