

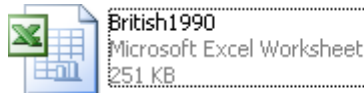
All-Age Reference Equations

Download Instructions and Use

[www.growinglungs.org.uk](http://www.growinglungs.org.uk)

# The Files

- There are three essential files:



- Save British1990.xls and Spiro.xls to:

My Computer

C: Drive

Program files

Microsoft Office

Office 11

XLSTART

- Save “Growth” add-in to your Microsoft Add-in file:

My Computer

C: Drive

Documents and Settings

User (your file directory)

Application Data

Microsoft

Addins

# How to Install in Excel

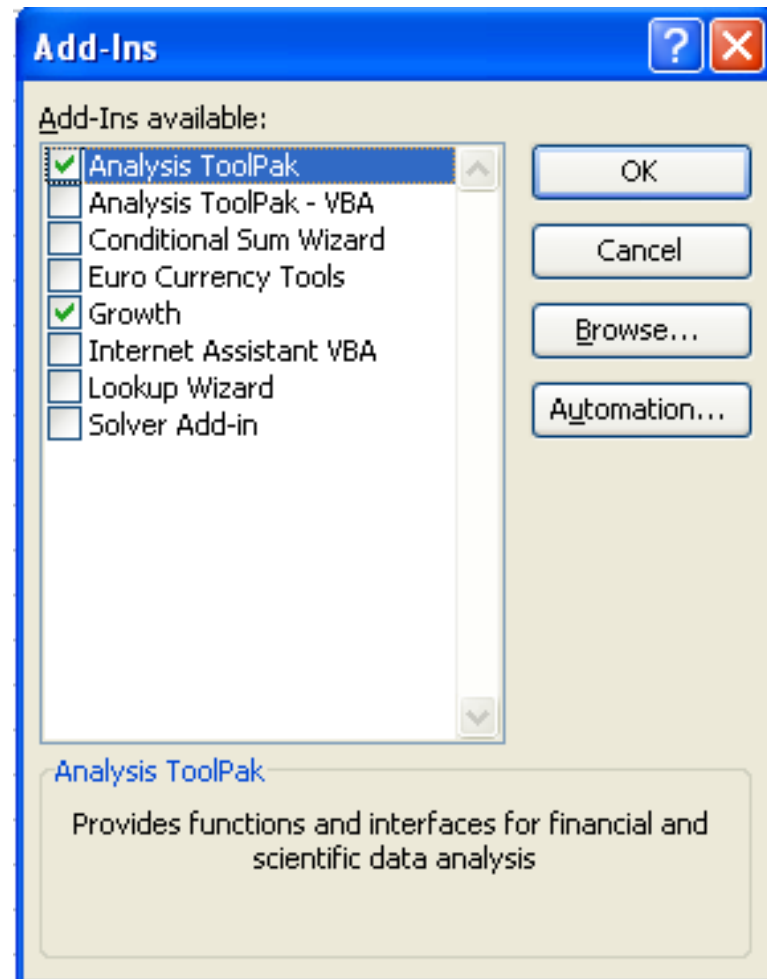
Open a blank document

Tools

Add-ins

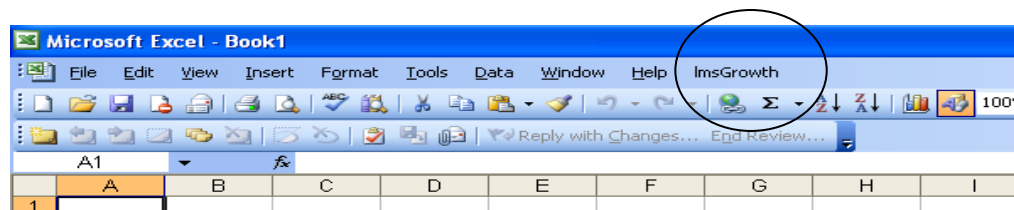
Select “Growth”

Note You may need to browse for the file  
See Excel Help for Add-In details

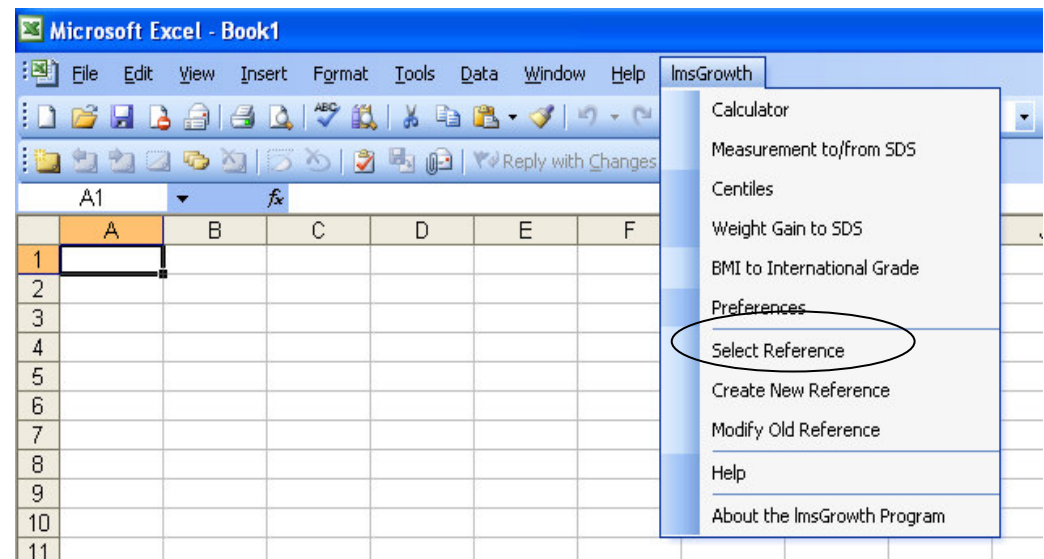


# Setting up ImsGrowth

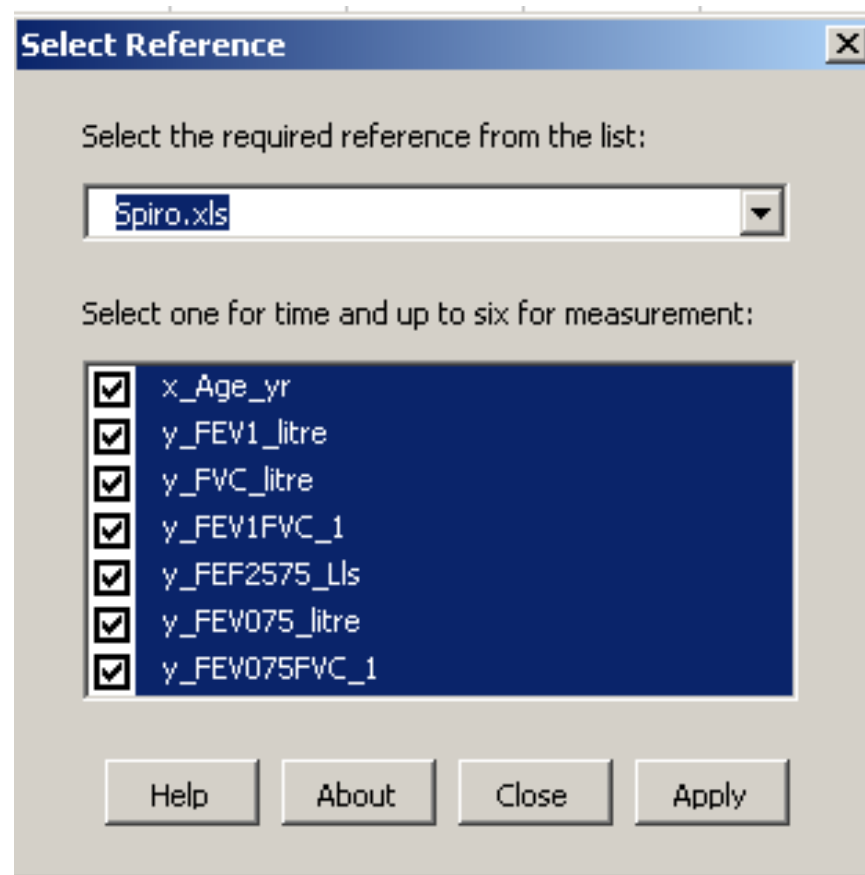
- Once installed, ImsGrowth will appear in the tool bar



- Click on ImsGrowth
- Click Select Reference

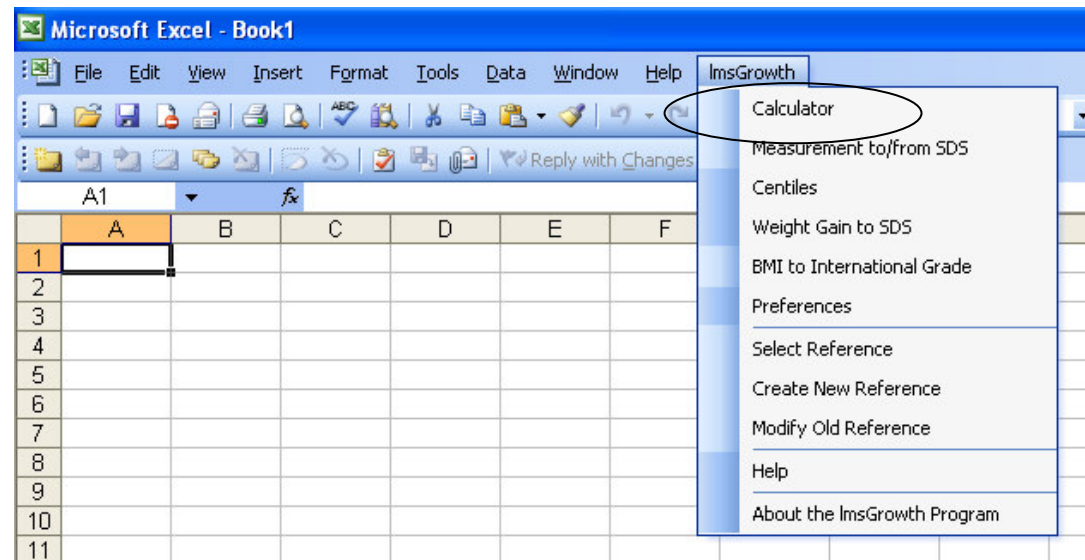


Select the **Spiro.xls** reference and ensure all 7 boxes are selected as shown



# To Compare an Individual Result

- Click ImsGrowth
- Click Calculator



# The Calculator

Calculator with Spiro

Male  Female  Adjust for gestation

Age

Dates

years months weeks days years

Age

Covariates

Height cm

Measurements

	FEV1 litre	FVC litre	FEV1/FVC 1	FEF2575 L/s	-	-
Value						
SDS						
Centile						

Help Reset Close

Note: Age can be entered as 14.3 in the years box

Note: FEV<sub>1</sub>/FVC is a ratio NOT a percentage

**In this program SDS and z-score are interchangeable terms**

# The Calculator: An Example

- Enter

Sex (F)

Age (6.33 yrs)

Height (118 cm)

FEV<sub>1</sub> (1.45 L)

FVC (1.61 L)

Calculator with Spiro

Male  Female  Adjust for gestation

Age

Dates

Age

years months weeks days years

6.33 6.33

Covariates

Height cm 118

Measurements

	FEV1 litre	FVC litre	FEV1/FVC 1	FEF2575 L/s	FEV075 litre	FEV075/FVC 1
Value	1.45	1.61				
SDS	1.09	1.25				
%Predicted	115.2	117.8				

Help Reset Close

Click on the pink text to toggle between:

- **SDS**
- **Centile**
- **Predicted**
- **% Predicted**
- % CV
- *Skewness*

Calculator with Spiro

Male  Female  Adjust for gestation

Age

Dates

Age

years months weeks days

6.33 6.33

Covariates

Height cm 118

Measurements

	FEV1 litre	FVC litre	FEV1/FVC 1	FEF2575 Lls	FEV075 litre	FEV075/FVC 1
Value	1.45	1.61				
SDS	1.09	1.25				
%Predicted	115.2	117.8				

Help Reset Close

**NB: % CV and Skewness do not apply for interpretation of individual results**

# Conversion to SDS for an Entire Dataset (must be in Excel format)

Type in the column letters relating to:  
H = Sex (1=M, 2=F)  
G = Age (years)  
K = Height (cm),  
M= FEV<sub>1</sub> (L) etc.

Click on the pink label to change SDS to % predicted

The output is entered in the first available column or you can select an output column

Measurement -> SDS with Spiro

Sex: Male    Gestation (weeks): Ignore

Specify Rows: From 1 to 154     With Header

Specify Age Columns:  Dates     Age    years    G

Specify Covariate Columns: Height cm    K

Specify Measurement Columns:

Measurement	SDS
FEV1 litre	AF
FVC litre	
FEV1/FVC	
FEF2575 L/s	
-	
-	

Buttons: Help    Reset    Close    Apply