Welcome to a quick tour of Limb Volumes Professional 3.0

LVP3.0 was developed by therapists for therapists. It has been evaluated in the field and has received rave reviews for ease of use, accuracy, flexibility and for its utility in patient reporting and documentation use.

Its utility has further been demostrated by its use in lymphedema clinical and research studies with scientific presentations at international meetings

It is the only automated limb volumes software that allows you to:

- **choose any segment length to make your limb volume determinations**
- **accurately include hand volumes for upper extremeties**
- **accurately include foot volumes for lower extremities**
- **immediately view graphics display of segment-by-segment comparisons**
- **provide valid tabulated and graphic summary reports for documentation**

Please review the following sequence of slides made from screen shots that show some of the main features and procedural steps in more detail

If you have any questions please contact us at info@bioscience-research.net or 954-205-7199

LIMB VOLUME CALCULATION, TRACKING & DOCUMENTATION

Limb Volumes Professional Version 3.0

A clinical innovation from Bioscience Research Institute

This is a fully functional single machine license version of Limb Volumes Professional 3.0.

View

Full Screen

Reset Screen

LVP3.0 helps you to easily and systematically calculate, track, document and report your patients' limb volumes prior to and during the course of therapy.

1. Arm or Leg volumes with unilateral or bilateral involvement
2. Edema volume of affected limbs (unilateral involvement)
3. Percentage edema of affected limbs (unilateral involvement)
4. Option to include HAND volumes as part of total upper extremity assessment
5. Option to include FOOT volumes as part of total lower extremity assessment
6. Absolute and % changes in limb volumes for unilateral and bilateral

For each patient visit that you measure limb size, simply enter the limb circumferences and let the software calculate limb volumes and display the needed comparisons graphically to provide an image of how well treatment is progressing.

You can name, save, print and recall patient records as with any Excel file

Proceed to the INTRO page

Click here to begin

Order LVP3.0

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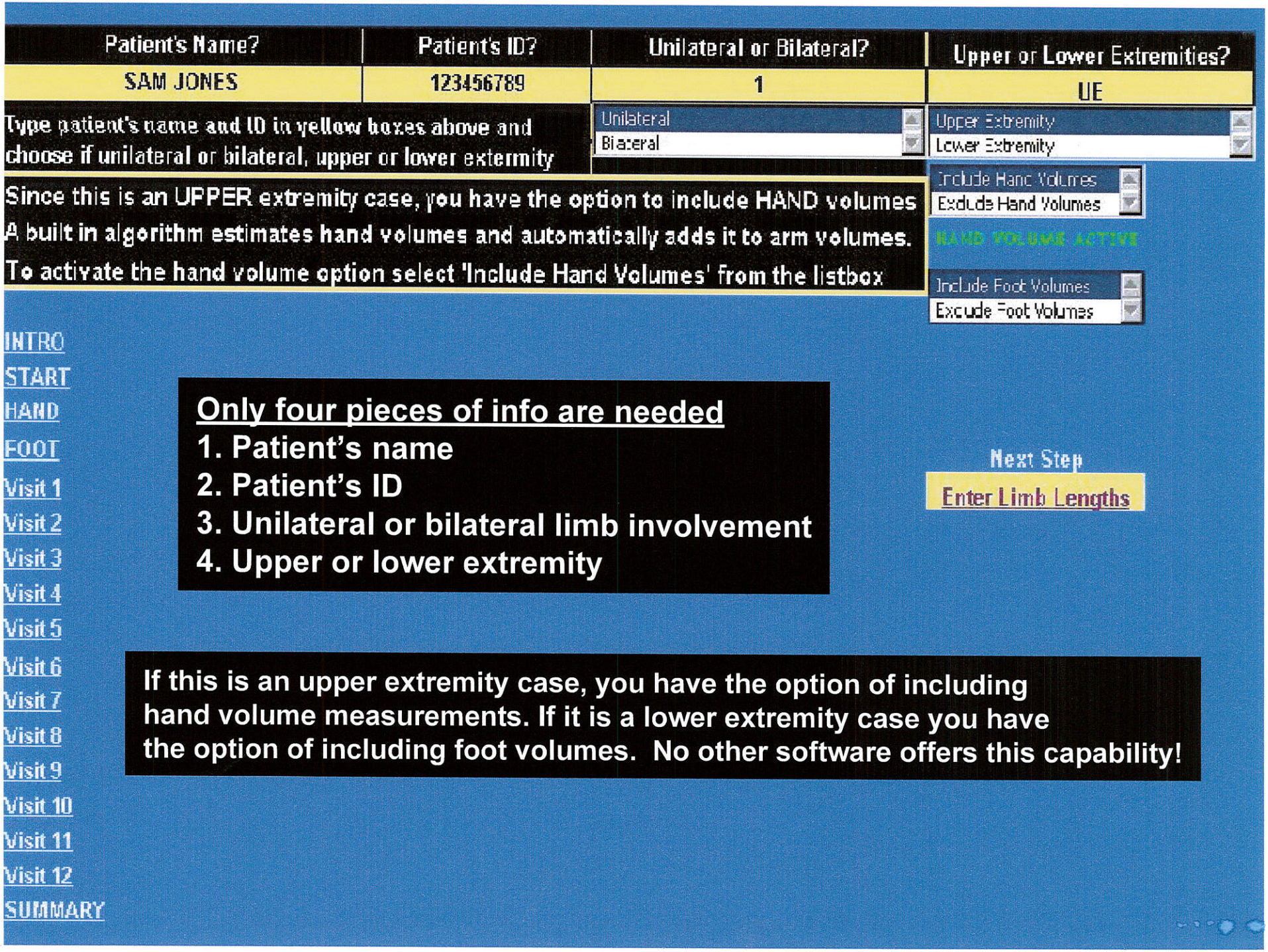
Patient's Name?
Patient's ID?
Unilateral or Bilateral?
Upper or Lower Extremities?
SAM JONES
123456789
1
UE
Type patient's name and ID in yellow boxes above and choose if unilateral or bilateral, upper or lower extremity
Unilateral
Bilateral
Upper Extremity
Lower Extremity
Since this is an UPPER extremity case, you have the option to include HAND volumes
A built in algorithm estimates hand volumes and automatically adds it to arm volumes.
To activate the hand volume option select 'Include Hand Volumes' from the listbox
Include Hand Volumes
Exclude Hand Volumes
HAND VOLUME ACTIVE
Include Foot Volumes
Exclude Foot Volumes
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SUMMARY
Only four pieces of info are needed
1. Patient's name
2. Patient's ID
3. Unilateral or bilateral limb involvement
4. Upper or lower extremity
Next Step
Enter Limb Lengths
If this is an upper extremity case, you have the option of including hand volume measurements. If it is a lower extremity case you have the option of including foot volumes. No other software offers this capability!

If this is your INITIAL session with this patient then begin by entering patient information in the patient data page Patient Data Page

If this is the patient's 1st visit then click here

If this is a FOLLOW-UP visit your patient's initial data has already been entered.

OPTIONS

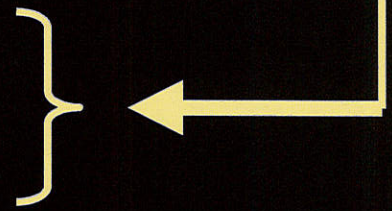
For all subsequent visits you would go directly to the visit #

If this is a UPPER extremity case, and you have chosen to include hand volumes then you should proceed to the HAND data entry page. If this is a LOWER extremity case and you have chosen to include foot volumes, proceed to the FOOT data entry page

Otherwise, proceed to the appropriate visit number by clicking on the list

Visit 1 visit 2 visit 3 visit 4 visit 5 visit 6

visit 7 visit 8 visit 9 visit 10 visit 11 visit 12



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SUMMARY

Serial Number JNK2088685040RAF327158779

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Info/technical support: info@bioscience-research.net
954-205-7199

Patient's name	Patient's ID	Number of affected limbs	Extremities
SAM JONES	123456789	1	UE

Enter patient's limb and hand/foot parameters on 1st visit only

Once you enter the limb length you can choose to measure circumferences using any seperation (segment length). No other software offers this flexibility!

Limb Length

1. LIMB LENGTH: Enter distance from wrist to upper-most point on arm that you will measure circumferences → 47 cm

Seg Length

2. SEGMENT LENGTH: Choose distance between adjacent circumference measurements. Normally these are at 4 cm intervals but you can choose any segment length. To accept default do nothing else enter a new value → 4 cm

Hand Length

HAND RECORDING OPTION IS ACTIVE: ENTER HAND VALUES

Hand Length

3. HAND LENGTH: Since hand option chosen, enter the distance from the middle finger nailfold to the wrist → 22 cm

Seg Length

4. HAND SEGMENTS: Choose fixed interval you will measure the hand circumferences. Normally these are at intervals of 3 cm but you can choose any segment length. To accept default do nothing else enter a new value 3 cm

LAST STEP Enter HAND Circumferences for Visit 1

Enter Hand Circumferences (Optional)

This form is used to calculate hand volumes. Hand length and circumference measurement intervals are already set in the START page
After you enter hand circumferences below, hand volumes are automatically calculated and added to arm volumes for each visit

Hand Length (cm)	For the current visit, enter hand circumferences for segments 1 through 8																							
22	After entering these, click on current visit to begin entering Arm Circumferences																							
	cm from nail 0	Seg num	HAND CIRCUMFERENCES (cm)																					
			Visit1		Visit2		Visit3		Visit4		Visit5		Visit6		Visit7		Visit8		Visit9		Visit10		Visit11		Visit12	
Segment Length (cm)			Tx	Norm	Tx	Norm	Tx	Norm	Tx	Norm	Tx	Norm	Tx	Norm	Tx	Norm	Tx	Norm	Tx	Norm	Tx	Norm	Tx	Norm	Tx	Norm
3	3	1	14	10																				
	6	2	16	11																				
	9	3	18	12																				
# of full Segments	12	4	20	13																				
7	15	5	22	14																				
	18	6	24	15																				
	21	7	26	16																				
Partial Segment Length (cm)	22	8	28	18																				
1																								
			HAND VOLUMES (ml)																					
total # segments			Visit1		Visit2		Visit3		Visit4		Visit5		Visit6		Visit7		Visit8		Visit9		Visit10		Visit11		Visit12	
8			Tx	Norm	Tx	Norm	Tx	Norm	Tx	Norm	Tx	Norm	Tx	Norm	Tx	Norm	Tx	Norm	Tx	Norm	Tx	Norm	Tx	Norm	Tx	Norm
			664	277	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

All that is needed here is to enter hand circumferences at automatically predetermined sites. A special algorithm automatically calculates hand volumes and adds it to the limb volume and also presents hand volumes seperately

Enter Foot Measuremts (Optional)

This form is used to calculate FOOT volumes. Refer to the foot measurement instructions and the foot image for definitions
After you enter data below, foot volumes are automatically calculated and added to leg volumes for each visit

Show Foot | View Instructions in PowerPoint | View/Print Instructions in PDF

Enter data in mm. After entering foot data, click on current visit to begin entering leg Circumferences

Foot Measurement Parameters	FOOT MEASUREMENTS (mm)																							
	Visit1		Visit2		Visit3		Visit4		Visit5		Visit6		Visit7		Visit8		Visit9		Visit10		Visit11		Visit12	
	Tx	Norm	Tx	Norm	Tx	Norm	Tx	Norm	Tx	Norm	Tx	Norm	Tx	Norm	Tx	Norm	Tx	Norm	Tx	Norm	Tx	Norm	Tx	Norm
L4																								
L3																								
WX																								
WZ																								
WY																								
L12																								
L8																								
W12																								
W8																								
W4																								
HX																								
HZ																								
HY																								

On this page you enter foot measurements according to a carefully constructed procedure from which foot volumes are automatically determined and added to leg volumes and also shown as foot volume seperately.

Enter data in mm

FOOT VOLUMES (ml)																								
	Visit1		Visit2		Visit3		Visit4		Visit5		Visit6		Visit7		Visit8		Visit9		Visit10		Visit11		Visit12	
	Tx	Norm	Tx	Norm	Tx	Norm	Tx	Norm	Tx	Norm	Tx	Norm	Tx	Norm	Tx	Norm	Tx	Norm	Tx	Norm	Tx	Norm	Tx	Norm
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Enter Limb Circumferences

Visit 1		Notes: Tx is affected limb undergoing treatment; Norm is contralateral limb for comparison
	Limb Length ▶ 47	If both limbs are affected (bilateral) then limbs are designated as right and left
From data there are	11	full segments plus one partial segment of length =

Segment Length (cm) ▶ 4	Total # Segments
3	12

Enter Circumferences in yellow cells below (columns C and D)

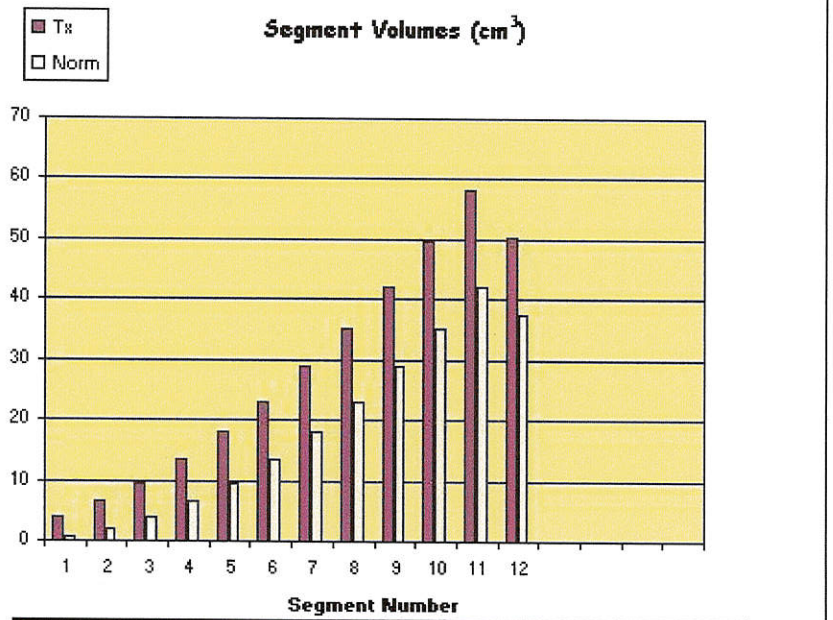
Note that the first circumference pair to be entered for "0" cm corresponds to either the wrist or ankle

cm from wrist/ ankle	Circumferences (cm) Tx	Norm	segment number	Volume (ml) Tx	Norm
0	3	1			
4	4	2	1	4	1
8	5	3	2	6	2
12	6	4	3	10	4
16	7	5	4	13	6
20	8	6	5	18	10
24	9	7	6	23	13
28	10	8	7	29	18
32	11	9	8	35	23
36	12	10	9	42	29
40	13	11	10	50	35
44	14	12	11	58	42
47	15	13	12	50	37

Circumferences for predetermined positions are entered into the yellow columns and all else is automatically determined for you!

For each visit limb volumes & %edema are immediately available for review

Limb Volumes	Tx	Norm	Edema	%Edema
Total Volume (ml)	1003	498	505	101.3
Limb only (ml)	339	221		
Hand only (ml)	664	277		



Graphics allow immediate comparsions

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SUMMARY

Therapist: Therapist name Pt. Name: SAM JONES Date: 3-Jan-04

ID: 123456789 Tx number: 1

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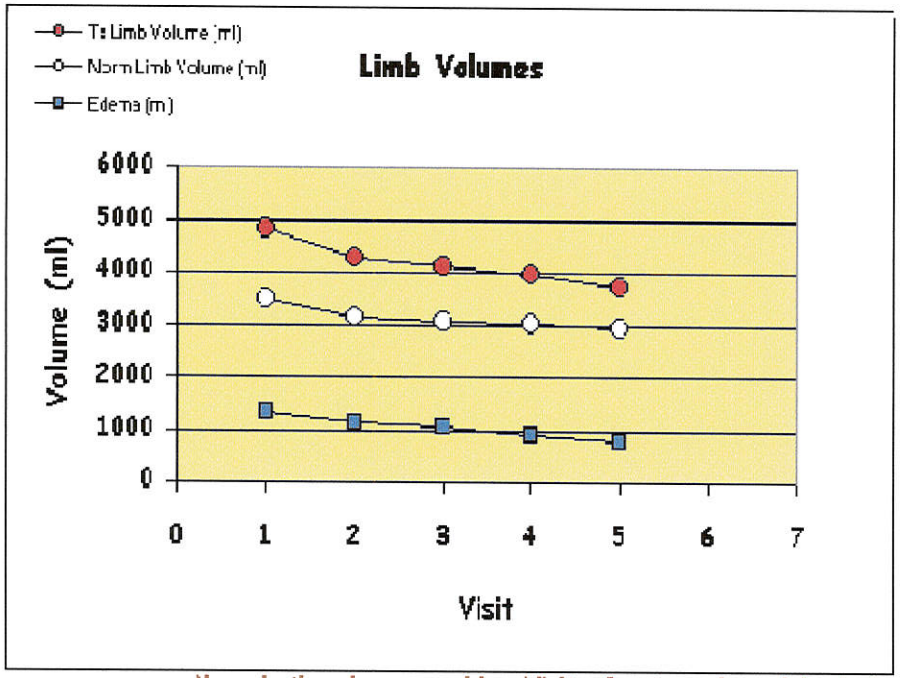
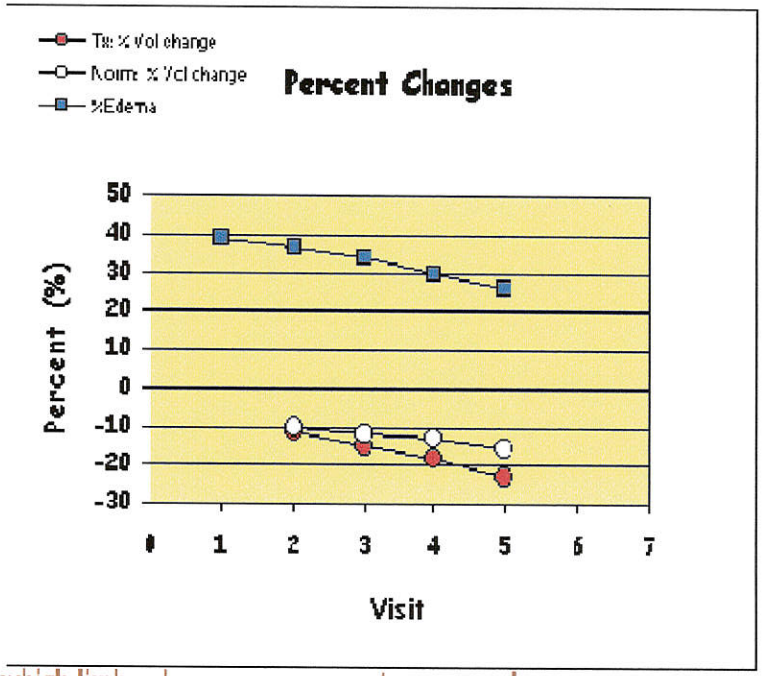
Summary Report

Summary Report for Gloria Patient ID 123-45-6789 Unilateral Upper Extremity 6/28/2003 23:57

Visit	1	2	3	4	5	6	7	8	9	10	11	12
Ts Limb Volume (ml)	4940	4290	4123	3943	3714							
Norm Limb Volume (ml)	349	3138	3071	3037	2945							
Edema (ml)	1348.6	1152	1052	903.16	769.48							
%Edema	38.6	36.7	34.3	29.8	26.1							
Ts: % Vol change		-11.4	-14.8	-18.5	-23.3							
Norm: % Vol change		-10.1	-12.0	-13.0	-15.6							

All important parameters are tabulated sequentially and graphed for easy viewing. The page can be printed and used directly as the report.





Note: In the above graphics, Visit refers to patient visits during which limb volume measurements were made

For bilateral cases the labels are automatically changed to reflect right and left limb volumes and percentage changes in limb volume

Case Study

Enter data in yellow cells

Notes: Tx is affected limb undergoing treatment; Norm is contralateral limb for comparison

Visit 1

Limb Length	Segment Length (cm)	Total # Segments
52	4	
From data there are 13	full segments plus one partial segment of length = 0	13

If both limbs are affected (bilateral) then limbs are designated as right and left

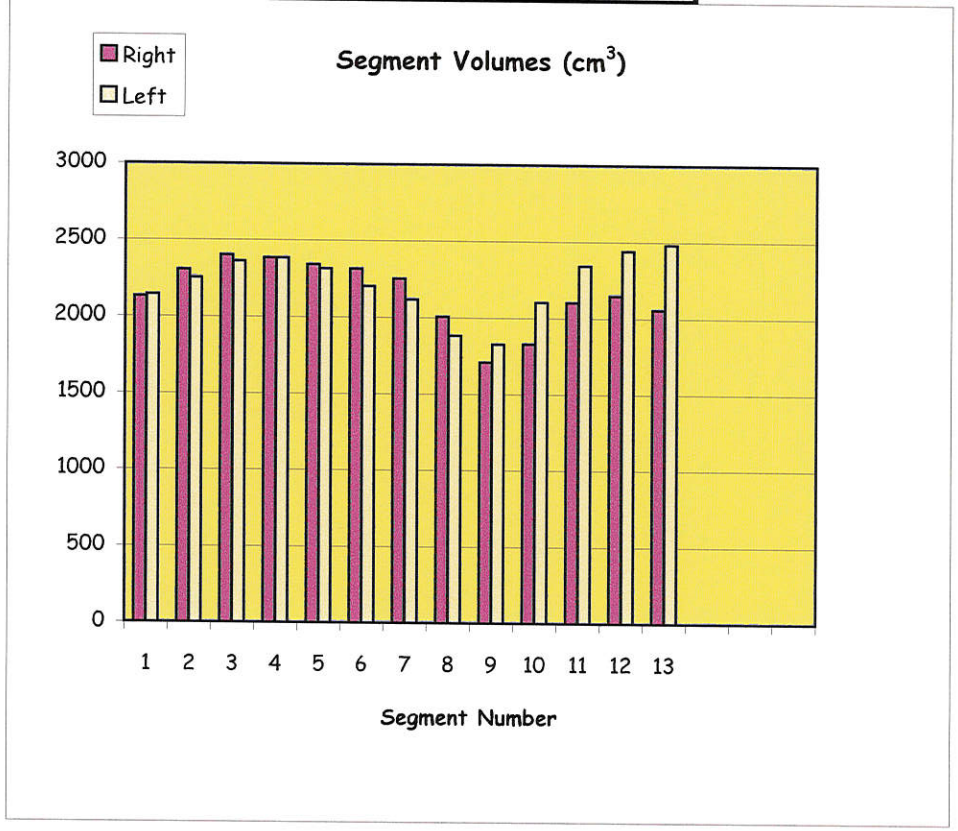
Enter circumferences starting from wrist or ankle into columns B and C

Note that the first circumference pair to be entered for "0" cm corresponds to either the wrist or ankle

cm from wrist/ ankle	Circumferences (cm) Right	Left	segment number	Volume (cm^3) Right	Left	Area (cm^2) Right	Left
0	80	81.5					
4	83.5	82.5	1	2129	2141	330	328
8	86.6	85.7	2	2304	2253	343	339
12	87	86.5	3	2399	2361	347	345
16	86	86.5	4	2383	2383	346	346
20	85.5	84	5	2342	2315	343	343
24	85	82.3	6	2315	2202	341	333
28	83.2	80.8	7	2253	2118	337	327
32	75.5	73	8	2007	1885	332	322
36	71	78.5	9	1709	1828	298	310
40	80.5	84	10	1830	2103	324	333
44	82	87.5	11	2102	2342	326	346
48	82.2	87.5	12	2147	2438	328	350
52	78.5	89	13	2056	2480	325	354

Total Limb values	Right	Left	Edema	%Edema
Volumes (cm^3)	27975	28850	-874	-3.0
Surface Area (cm^2)	4320	4376		

View



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SUMMARY

Therapist: Joan Glunk

Pt. Name: K.M.

ID: 0

Tx number:

Date: 20-May-03

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Enter data in yellow cells

Visit 5

Limb Length	Segment Length (cm)	Total # Segments
52	4	

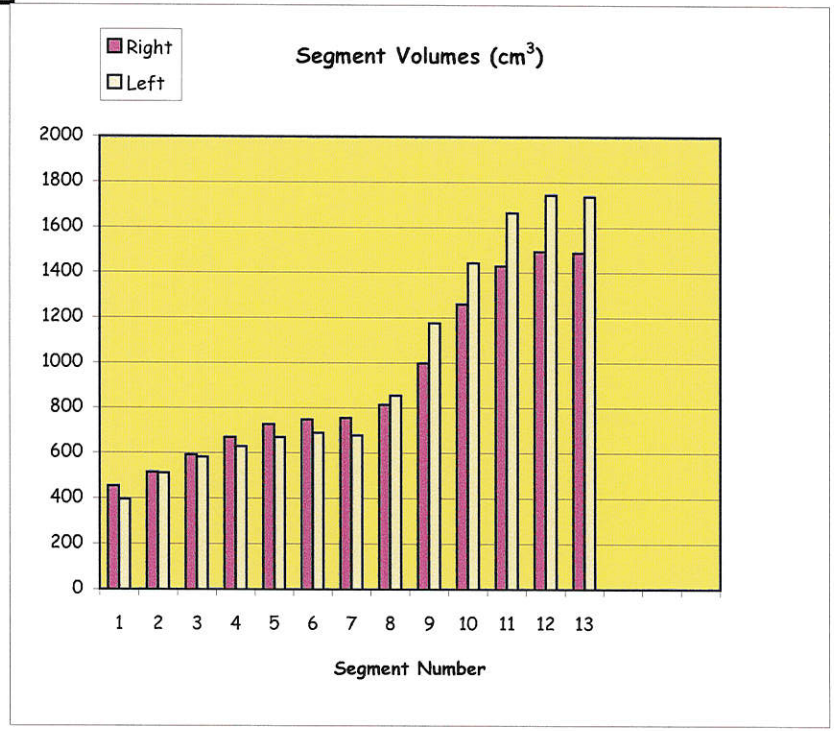
From data there are **13** full segments plus one partial segment of length = **0** **13**

Enter circumferences starting from wrist or ankle into columns B and C

View

Total Limb values	Right	Left	Edema	%Edema
Volumes (cm^3)	11945	12773	-828	-6.5
Surface Areas (cm^2)	2765	2851		

cm from wrist/ ankle	Circumferences (cm) Left	segment number	Volume (cm^3) Right	Volume (cm^3) Left	Area (cm^2) Right	Area (cm^2) Left
0	36.6	32				
4	38.9	38.4	1	454	396	152	145
8	41.5	41.7	2	515	511	162	162
12	44.7	43.8	3	592	582	174	172
16	47	45	4	670	628	184	178
20	48.5	46.7	5	726	670	191	184
24	48.4	46.3	6	748	689	194	186
28	49	45.9	7	755	677	195	184
32	52.1	57.5	8	814	855	204	228
36	59.8	64	9	999	1176	234	251
40	66	70.6	10	1261	1444	259	278
44	68	74	11	1430	1665	269	292
48	69	74	12	1494	1744	274	296
52	67.7	73.7	13	1488	1737	274	295



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SUMMARY

Therapist: Joan

Pt. Name: K.M.

ID: 0

Tx number:

Date: 15-Aug-03

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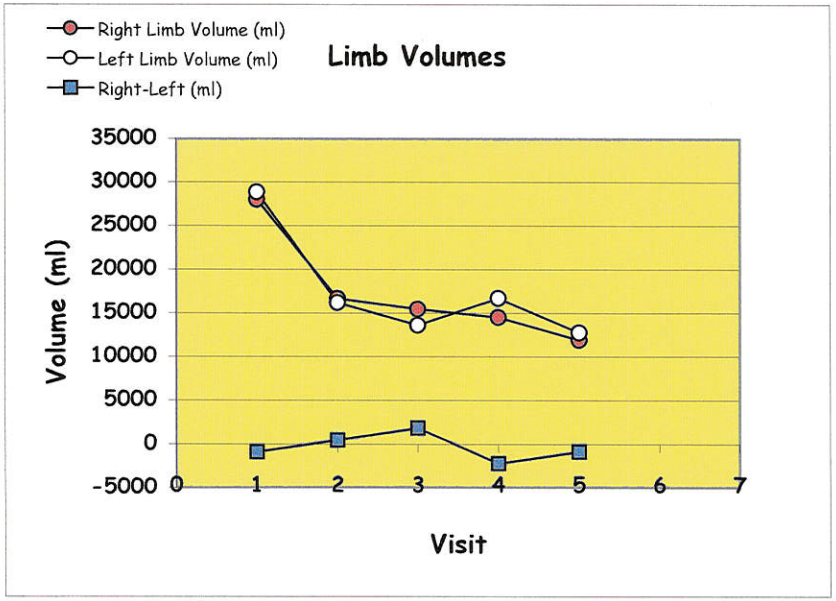
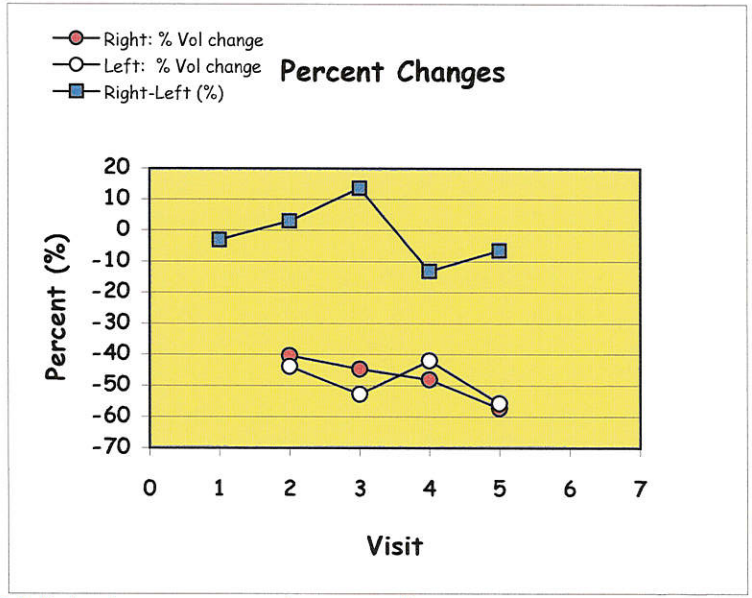
Summary Report for K.M.	ID 0	Bilateral Lower Extremity	10/6/2004 14:51

Visit	1	2	3	4	5	6	7	8	9	10	11	12
Right Limb Volume (ml)	27975	16667	15473	14536	11945	0	0	0	0	0	0	0
Left Limb Volume (ml)	28850	16191	13629	16730	12773	0	0	0	0	0	0	0
Right-Left (ml)	-874.4	476	1843	-2193	-827.6							
Right-Left (%)	-3.0	2.9	13.5	-13.1	-6.5							
Right: % Vol change		-40.4	-44.7	-48.0	-57.3							
Left: % Vol change		-43.9	-52.8	-42.0	-55.7							

View





Note: In the above graphics, Visit refers to patient visits during which limb volume measurements were made

Comments