Physical examination measurements

BRHS 30 year follow-up (Q30)

2010-2012

In 2010-12 BRHS participants underwent a 30 year follow-up physical examination. A total of 1722 men aged 71-92 years attended the examination (55% response rate). Clinical measurements were carried out on each participant by two trained research nurses and two vascular technicians. These included measurements of anthropometry, blood pressure, lung function and physical function, and dental assessments, resting electrocardiogram, bioelectric impedance analysis and fasting blood sample collection. Non-invasive cardiovascular measurements, including carotid ultrasound, carotid-femoral pulse wave velocity and ankle-brachial pressure index, were also taken[1].

Reference

Cohort Profile

[1] Lennon LT, Ramsay SE, Papacosta O, Shaper AG, Wannamethee SG, Whincup PH. Cohort Profile Update: The British Regional Heart Study 1978-2014: 35 years follow-up of cardiovascular disease and ageing. International journal of epidemiology. 2015;44(3):826-g. Epub 2015/08/02.

The data on dental and vascular measures are described in separate documents:-

- Dental measures: **BRHS 2010-12 (Q30) 30yr follow-up Dental Exam Documentation.pdf**
- Vascular measures: **BRHS 2010-12 (Q30) 30yr follow-up Vascular Measures Documentation.pdf**

Contents

i. A table with a list of the measurements in the order in which these were taken during the physical examination are shown in the table below.

   The columns in the table give:

   a. A description of each measurement
   b. The assigned BRHS database variable name
   c. Value labels/units for each variable
   d. a reference to the relevant section in the physical examination measurements and procedures protocol which describes in detail how the measurements were made. **(BRHS 2010-12 (Q30) 30yr follow-up Physical examination protocol.pdf)**
   e. Indication whether data access is available for each data variable.

ii. Sections 3.2 – 4.6 extracted from the full 30 year follow-up physical examination protocol **(BRHS 2010-12 (Q30) 30yr follow-up Physical examination protocol.pdf)** which describe in detail the procedures for each measurement listed.

Appendices

Appendix 1: The data collection form/datasheet (BRHS 2010-12 Physical exam data collection form Q30.pdf)

(i) Table with list of measurements

BRHS PHYSICAL EXAMINATION

2010-12 (Q30) 30 year follow-up

List of measurements in the order these were carried out

Physical measurements protocol in: BRHS 2010-12 (Q30) 30yr follow-up Physical examination protocol.pdf

Description	Value label/units	BRHS VARIABLE NAME	Protocol section	Data access
BRHS STUDY NUMBER		serial_ds		No
Q30 EXAMINATION BATCH NUMBER		q30batch		No
Observer = Research nurse identifier/code	GR,IB,NG,RW,SA	Q30obs		Yes
Time of screening: HOUR	Hour	Q30time_hour		Yes
Time of screening: MINUTES	Minute	Q30time_min		Yes
Unable to do Sit/Stand test-reason:	1=refusal 2=disabled	Q30sitstand5		Yes
Time taken to do Sit/Stand 5 times: Seconds	seconds	Q30sitstand5_secs	3.2.1	Yes
Number of times able to Sit/stand in 30sec		Q30sitstand5t_n	3.2.1	Yes
Used hands to do sit/stand test	1=yes 2=? H=hands P=problem 0=no	Q30sitstand5t_h	3.2.1	Yes
Unable to do the Walk 3meters test - reason:	1=refusal 2=disabled	Q30walk3m	3.2.2	Yes
Time taken to Walk 3m: Seconds	seconds	Q30walk3m_secs	3.2.2	Yes
Unable to complete Walk 3m test in 30sec	1=yes, 0=no	Q30walk3m_inc	3.2.2	Yes
Height (cm)	cm	Q30height	3.2.3	Yes
Height measurement Problem	1=yes, 0=no	Q30ht_p	3.2.3	Yes
Weight (using either Tanita scales OR digital scales)	kg	Q30weight	3.2.4	Yes
Weight measurement Problem	1,P=Participant prob, 2=No BC data(printer or other problem), T=Technical prob , 0=no problem	Q30wt_p	3.2.4	Yes
Weight (for those with pacemaker - using digital scales)	kg	Q30weight2	3.2.4	Yes
Waist circumference - measurement 1 - (cm)	cm	Q30waistc1	3.2.5	Yes
Waist circumference - measurement 2 - (cm)	cm	Q30waistc2	3.2.5	Yes
Waist circumference - measurement Problem	1=yes, P=participant prob , T=Technical , 0=no	Q30waist_p	3.2.5	Yes

Description/cont.	Value label/units	BRHS VARIABLE NAME	Protocol section	Data access
Hip circumference measurement 1 (cm)	cm	Q30hip1	3.2.6	Yes
Hip circumference measurement 2 (cm)	cm	Q30hip2	3.2.6	Yes
Hip circumference measurement Problem	1=yes, P=participant prob, T=Technical, 0=no	Q30hip_p	3.2.6	Yes
Arm circumference (cm)	cm	Q30armc	3.2.7	Yes
Arm circumference problem	1=yes, P=participant prob, T=Technical, 0=no	Q30armc_p	3.2.7	Yes
Triceps measurement 1 (mm)	mm	Q30tricep1	3.2.8	Yes
Triceps measurement 2 (mm)	mm	Q30tricep2	3.2.8	Yes
Triceps measurement Problem	1=yes, P=participant prob, T=Technical, 0=no	Q30tricep_p	3.2.8	Yes
Subscap measurement 1 (mm)	mm	Q30subscap1	3.2.8	Yes
Subscap measurement 2 (mm)	mm	Q30subscap2	3.2.8	Yes
Subscap measurement Problem	1=yes, P=participant prob, T=Technical, 0=no	Q30subscap_p	3.2.8	Yes
SBP sitting - measurement 1	mmHG	Q30sbpsit1	3.2.9	Yes
SBP sitting - measurement 2	mmHG	Q30sbpsit2	3.2.9	Yes
SBP standing - measurement 1	mmHG	Q30sbpstand1	3.2.9	Yes
SBP standing - measurement 2	mmHG	Q30sbpstand2	3.2.9	Yes
DBP sitting - measurement 1	mmHG	Q30dbpsit1	3.2.9	Yes
DBP sitting - measurement 2	mmHG	Q30dbpsit2	3.2.9	Yes
DBP standing - measurement 1	mmHG	Q30dbpstand1	3.2.9	Yes
DBP standing - measurement 2	mmHG	Q30dbpstand2	3.2.9	Yes
Heart Rate sitting - measurement 1	per min	Q30hratesit1	3.2.9	Yes
Heart Rate sitting - measurement 2	per min	Q30hratesit2	3.2.9	Yes
Heart Rate standing - measurement 1	per min	Q30hratestand1	3.2.9	Yes
Heart Rate standing - measurement 2	per min	Q30hratestand2	3.2.9	Yes
BP cuff size (based on Arm circ(cm)	Arm circ <22cm =1, 22-32cm=2, 3= >32cm=3	Q30bp_cuff	3.2.10	Yes
BP instrument		Q30bp_instr	3.2.10	Yes
BP instrument problem	0= 1= 2= 3=	Q30bp_instr_p	3.2.10	Yes
Subject felt Faint	yes=1	Q30faintness	3.2.10	Yes
Subject felt Breathless	yes=1	Q30breathless	3.2.10	Yes
Room temperature(^{o}C)	^{o}C	Q30room_temp	3.2.10	Yes

Description/cont.	Value label/units	BRHS VARIABLE NAME	Protocol section	Data access
Ethnicity	1=Caucasian (WE)	Q30ethnicity	3.2.10	Yes
	2=Afro Caribbean (BAC)			
	3= Asian (SA)			
	4= Oriental (CH/J/O)			
	5=Other			
Spirometry instrument number		Q30spir_instr	3.2.11	Yes
Subject used Inhaler in last 24hours	1=yes	Q30inh24h	3.2.11	Yes
Subject used Inhaler: TIME inhaler used HOUR	Hour	Q30time_inh_h	3.2.11	Yes
Subject used Inhaler: TIME inhaler used MINUTES	Minute	Q30time_inh_m	3.2.11	Yes
BTV from spirometry output - recorded on datasheet		Q30btv_dsheet	3.2.11	Yes
Contraindications to the lung function test	1=yes	Q30ci	3.2.11	Yes
Problem with performing Lung Function test	1= p=	Q30ci_p	3.2.11	Yes
Grip instrument - number	1 - 3	Q30grip_instr	3.2.12	Yes
Grip strength RIGHT HAND measurement 1	kg	Q30grip_r1	3.2.12	Yes
Grip strength RIGHT HAND measurement 2	kg	Q30grip_r2	3.2.12	Yes
Grip strength RIGHT HAND measurement 3	kg	Q30grip_r3	3.2.12	Yes
Grip strength RIGHT HAND Dominant (participant asked)	1=yes	Q30grip_dom_r	3.2.12	Yes
Grip strength RIGHT HAND measuring Problem	0=no, (1=yes, p=problem)	Q30grip_rp	3.2.12	Yes
Grip strength LEFT HAND measurement 1	kg	Q30grip_l1	3.2.12	Yes
Grip strength LEFT HAND measurement 2	kg	Q30grip_l2	3.2.12	Yes
Grip strength LEFT HAND measurement 3	kg	Q30grip_l3	3.2.12	Yes
Grip strength LEFT HAND Dominant (participant asked)	1=yes	Q30grip_dom_l	3.2.12	Yes
Grip strength LEFT HAND measuring Problem	0=no, (1=yes, p=problem)	Q30grip_lp	3.2.12	Yes
Spirometry batch number		Q30spir_ref	3.2.11	No
Spirometry Number of Blows		Q30spir_nblows	3.2.11	Yes
Spirometry BTV		Q30spir_btv	3.2.11	Yes
Spirometry FVC (best of 3 blows)	L	Q30fvc	3.2.11	Yes
Spirometry FEV0.5 (best of 3 blows)	L	Q30fev05	3.2.11	Yes
Spirometry FEV1 (best of 3 blows)	L	Q30fev1	3.2.11	Yes
Spirometry PEF (best of 3 blows)	L/min	Q30pef	3.2.11	Yes

Description /cont.	Value label/units	BRHS VARIABLE NAME	Protocol section	Data access
Spirometry FEF 25-75% (best of 3 blows)	L/s	Q30fef2575	3.2.11	Yes
Spirometry FEF 75-85% (best of 3 blows)	L/s	Q30fef7585	3.2.11	Yes
Spirometry FEF 25% (best of 3 blows)	L/s	Q30fef25	3.2.11	Yes
Spirometry FEF 50% (best of 3 blows)	L/s	Q30fef50	3.2.11	Yes
Spirometry FEF 75% (best of 3 blows)	L/s	Q30fef75	3.2.11	Yes
TANITA Body Composition date - day		Q30bc_dated	3.2.4	Yes
TANITA Body Composition date - month		Q30bc_datem	3.2.4	Yes
TANITA Body Composition date - year		Q30bc_datey	3.2.4	Yes
TANITA Body Composition time - hour	Hour	Q30bc_timeh	3.2.4	Yes
TANITA Body Composition time - mins	Minute	Q30bc_timem	3.2.4	Yes
TANITA Body Composition - Body type (inputted)	1=standard 2=athletic	Q30bc_bodytype	3.2.4	Yes
TANITA Body Composition - Gender (inputted)	2=male	Q30bc_gender	3.2.4	Yes
TANITA Body Composition - Age (inputted)		Q30bc_age	3.2.4	Yes
TANITA Body Composition - height (inputted)	cm	Q30bc_height	3.2.4	Yes
TANITA Body Composition - weight	kg	Q30bc_weight	3.2.4	Yes
TANITA Body Composition - bmi	kg/m2	Q30bc_bmi	3.2.4	Yes
TANITA Body Composition - Basal Metabolic Rate (kj)	kj	Q30bc_BMR_kj	3.2.4	Yes
TANITA Body Composition - Basal Metabolic Rate (kcal)	kcal	Q30bc_bmr_kcal	3.2.4	Yes
TANITA Body Composition - %Fat	%	Q30bc_fat_pc	3.2.4	Yes
TANITA Body Composition - Fat Mass	kg	Q30bc_fatmass	3.2.4	Yes
TANITA Body Composition - Fat Free Mass	kg	Q30bc_ffm	3.2.4	Yes
TANITA Body Composition - Total Body Water	kg	Q30bc_tbw	3.2.4	Yes
TANITA Body Composition - Visceral Fat Rating		Q30bc_VFR	3.2.4	Yes
TANITA Body Composition - %Fat Desirable range Min		Q30bc_drange_fatpc_min	3.2.4	Yes
TANITA Body Composition - %Fat Desirable range Max		Q30bc_drange_fatpc_max	3.2.4	Yes
TANITA Body Composition - Fat Mass Desirable range Min		Q30bc_drange_fmass_min	3.2.4	Yes
TANITA Body Composition - Fat Mass Desirable range Max		Q30bc_drange_fmass_max	3.2.4	Yes
TANITA Impedance Whole Body	ohm (W)	Q30imp_wb	3.2.4	Yes
TANITA Impedance Right Leg	ohm (W)	Q30imp_rl	3.2.4	Yes
TANITA Impedance Left Leg	ohm (W)	Q30imp_ll	3.2.4	Yes
TANITA Impedance Right Arm	ohm (W)	Q30imp_ra	3.2.4	Yes
TANITA Impedance Left Arm	ohm (W)	Q30imp_la	3.2.4	Yes

Description /cont.	Value label/units	BRHS VARIABLE NAME	Protocol section	Data access
TANITA Right Leg FAT%	%	Q30rleg_fat	3.2.4	Yes
TANITA Right Leg FAT MASS	kg	Q30rleg_fmass	3.2.4	Yes
TANITA Right Leg Fat Free Mass	kg	Q30rleg_ffm	3.2.4	Yes
TANITA Right Leg Predicted Muscle Mass	kg	Q30rleg_pmmass	3.2.4	Yes
TANITA Left Leg FAT%	%	Q30lleg_fat	3.2.4	Yes
TANITA Left Leg FAT MASS	kg	Q30lleg_fmass	3.2.4	Yes
TANITA Left Leg Fat Free Mass	kg	Q30lleg_ffm	3.2.4	Yes
TANITA Left Leg Predicted Muscle Mass	kg	Q30lleg_pmmass	3.2.4	Yes
TANITA Right Arm FAT%	%	Q30rarm_fat	3.2.4	Yes
TANITA Right Arm FAT MASS	kg	Q30rarm_fmass	3.2.4	Yes
TANITA Right Arm Fat Free Mass	kg	Q30rarm_ffm	3.2.4	Yes
TANITA Right Arm Predicted Muscle Mass	kg	Q30rarm_pmmass	3.2.4	Yes
TANITA Left Arm FAT%	%	Q30larm_fat	3.2.4	Yes
TANITA Left Arm FAT MASS	kg	Q30larm_fmass	3.2.4	Yes
TANITA Left Arm Fat Free Mass	kg	Q30larm_ffm	3.2.4	Yes
TANITA Left Arm Predicted Muscle Mass	kg	Q30larm_pmmass	3.2.4	Yes
TANITA Trunk Fat%	%	Q30trunk_fat	3.2.4	Yes
TANITA Trunk Fat Mass	kg	Q30trunk_fmass	3.2.4	Yes
TANITA Trunk Fat Free Mass	kg	Q30trunk_ffm	3.2.4	Yes
TANITA Trunk Predicted Muscle Mass	kg	Q30trunk_pmmass	3.2.4	Yes
Blood Test performed successfully	0=no, 1=Part sample taken, 2=full sample taken	Q30BT_SUCC	4.6	Yes
Blood Test problem	1=refusal, 2=technical problem	Q30BT_PR	4.6	Yes
Blood Test Time - Hour	Hour	Q30BT_TIMEH	4.6	Yes
Blood Test Time - Min	Minute	Q30BT_TIMEM	4.6	Yes
Blood Test Fasting instructions followed	1=Yes, 2=No, 3=Diabetic	Q30BT_FAST_INSTR	4.6	Yes
Blood Test - Time last eaten Hour	Hour	Q30BT_FAST_TLEH	4.6	Yes
Blood Test - Time last eaten Min	Minute	Q30BT_FAST_TLEM	4.6	Yes
Blood Test - DAY last eaten	1=Today, 2=Yesterday	Q30BT_FAST_DLE	4.6	Yes
Blood Test - batch number		Q30BT_id_batch	4.6	No
Blood Test - serial number		Q30BT_id_serial	4.6	No

Description /cont.	Value label/units	BRHS VARIABLE NAME	Protocol section	Data access
Blood Test - Citrate- Green tube	1=incomplete sample	Q30BT_IncS_A	4.6	No
Blood Test - Citrate- Green tube	1=incomplete sample	Q30BT_IncS_B	4.6	No
Blood Test - Serum gel - Yellow Tube	1=incomplete sample	Q30BT_IncS_C	4.6	No
Blood Test - Serum gel - Yellow Tube	1=incomplete sample	Q30BT_IncS_DE	4.6	No
Blood Test - Serum gel - Yellow Tube	1=incomplete sample	Q30BT_IncS_FJ	4.6	No
Blood Test - EDTA	1=incomplete sample	Q30BT_IncS_K	4.6	No
Blood Test - EDTA - Red Tube	1=incomplete sample	Q30BT_IncS_LN	4.6	No
Blood Test - EDTA - Red Tube	1=incomplete sample	Q30BT_IncS_PS	4.6	No
Blood Test - Fluroride oxalate	1=incomplete sample	Q30BT_IncS_T	4.6	No
ECG performed	1=Yes, 2=No	Q30ecg	4.4	Yes
Ankle oedema present - Left leg	1=Yes, 2=No	Q30ankle_oed_l	4.4	Yes
Ankle oedema present - Right leg	1=Yes, 2=No	Q30ankle_oed_r	4.4	Yes
Agreed to take part in Actigraph study/wear actigraph	1=Yes, 2=No	Q30actigraph	4.8	No
Actigraph recorded batch number		Q30actigraph_id_batch	4.8	No
Actigraph recorded serial number		Q30actigraph_id_serial	4.8	No
BODYSTAT - DOB day		Q30bstat_dob_d	4.7	Yes
BODYSTAT - DOB month		Q30bstat_dob_m	4.7	Yes
BODYSTAT - DOB year		Q30bstat_dob_y	4.7	Yes
BODYSTAT - Room Temperature	^{o}C	Q30bstat_RoomTemp	4.7	Yes
BODYSTAT - Skin Temperature		Q30bstat_SkinTemp	4.7	Yes
BODYSTAT - Pacemaker is worn	1=yes, 2=no	Q30bstat_Pacemaker	4.7	Yes
BODYSTAT - Instrument		Q30bstat_Instrument	4.7	Yes
BODYSTAT - reading of Bioimpedance		Q30bodystat	4.7	Yes
Consent form Question 1	1=yes, 2=No	Q30cons_q1	4.9	No
Consent form Question 2	1=yes, 2=No	Q30cons_q2	4.9	No
Consent form Question 3	1=yes, 2=No	Q30cons_q3	4.9	No
Consent was signed	1=yes, 2=No	Q30cons_signed	4.9	No
Date consent was signed	text "ddmmyy"	Q30cons_date	4.9	No
Q30 screening Examination DAY		Q30xd		Yes
Q30 screening Examination MONTH		Q30xm		Yes
Q30 screening Examination YEAR		Q30xy		Yes
Town where participant was examined	1-24, London=31, Cardiff=32, Home visit=41	Q30ExamTown		Yes

(ii) Physical examination protocol (extract)
(Measurement procedures - Sections 3.2 – 4.9)

3.2 Measurements

These will be taken in order as follows. First two measures with shoes on, remainder with shoes off:-

3.2.1 Chair stand test (5 stands) (chair rises)

Explain that will want the participant to stand up from a chair 5 times to see how long it takes. Seek their agreement – if they do not wish to undertake test indicate reason (refusal =1, disability = 2)

Set Up

Use a standard chair without arms and with a seat height of approximately 17 inches for all assessments, regardless of the height of the participant. If possible, place the back of the chair against a wall to prevent movement during the test.

Please ensure that the participant is wearing sensible flat shoes.

Procedure

- Instruct and demonstrate the following protocol before asking the participant to perform the test:
- Sit as far back as possible in the chair seat. Keep feet firmly planted on the floor approximately hip width apart and the back of lower legs away from the chair.
- Keep knees bent at a 90-degree angle and **arms crossed over the chest.**
  (An individual of average or taller height will be able to sit with their upper back against the back of the chair. Individuals of shorter than average height will not be able to touch the chair back while maintaining proper position and are not required to touch the chair back during testing).
- Demonstrate the procedure once, returning completely to the correct starting position.
- As a trial go, ask the participant to stand from a sitting position with their arms folded, to a straight-legged fully standing position.
- The participant should stand to a fully erect position ie their knees should not be bent and their back should be upright. This can be assessed on an individual basis ie they should stand as upright as they would normally.
- After successful completion of the practice go, explain to the participant that on your word "go" you would like them to stand up and sit back down as practiced, five times. Explain that you would like them to do this as quickly as possible and that you will be timing them.
- At the command "Ready, Set, Go" the tester begins timing by starting the stopwatch. Count each chair stand out loud when the participant is in the standing position. Provide continuous verbal encouragement during the test.
- Stop the "stop watch" when the participant is seated back in the chair on the final go, with arms remaining folded and back supported by the chair.
- If participant are unable to stand up one time without assistance than they can use their hands to assist them in rising and returning to the seated position while following all other procedures as described above. Make sure to note that hands were used when recording the assessment data.
- If the test is not completed within 30 seconds, record how many completed lifts have been made at that point.

3.2.2 Three metre walking test

General preparation
A 3-metre walkway or 'corridor' is constructed along a wall in a smooth-floored area. Narrow 15-centimetre vertical strips are fixed on the wall at floor level and 3 metres apart within the corridor. We prefer this to sticking a line on the floor which, in our experience, can distract patients. Chairs should be positioned at each end, but at least 0.5 m from the markers to allow for acceleration and deceleration effects. These chairs are of a height to suit the person and facilitate easy standing up.

Explain that will want the participant to walk a short distance along a corridor at their normal walking pace. Seek their agreement – if they do not wish to undertake test indicate reason (refusal =1, disability = 2).

If the participant cannot walk without your assistance they cannot perform the test. Please indicate this in the boxes provided on the data entry sheet.

Participants sit on a chair wearing their usual comfortable footwear or something suitable which has been provided. Thick-soled trainers are avoided so far as possible.

Avoid doing test while other people are passing close by.

Initial Instructions
I will ask you to stand up and will then say "Go". Then you should walk down to the chair facing you [indicate] at a comfortable pace without rushing. Do not stop until you have reached the other chair. Are you clear about what you are going to do?'

Starting Position
If necessary participants are helped to stand up. They may be reminded to walk at a comfortable pace, without rushing and without stopping, until they reach the opposite chair.

Instructions
Once the person is upright and steady the command 'Go' is given calmly, not in a way to imply the need for speed.

Warnings and Encouragement
During the walk no oral encouragement should be given although occasionally the command 'Keep going' is given if participants seem about to stop or be distracted. Afterwards their efforts are rewarded with 'Well done'.

Feedback about the actual time taken is not given.

Timing
Stop-watches, which time to at least 0.01 seconds, should be checked for accuracy regularly. Ordinary wrist watches with second hands are not suitable. The tester, carrying the stopwatch, walks quietly at the side of participants as they pass the first marker, then continues slightly behind them until close to the final marker when he moves forward opposite it. The tester avoids conveying any sense of pressure on the participant to hurry. Timing begins when the tip of the first foot crosses the first vertical strip, and stops when the heel of the last foot crosses the second vertical strip.

If the test is not finished after 30 seconds, mark the data sheet accordingly.

3.2.3 Height

Restrictions
None unless participant is unable to stand to have his/her height measured

Site - flat surface
Preparation – participant not wearing shoes
Equipment – Harpendon stadiometer

The participant is asked to stand on the stadiometer facing forwards, and as tall as he can. The Research Nurse should check for the following points:-

- FEET: ankles should be together and resting on the bar at the back,
- ARMS: should be resting by sides, not behind or in front,
- BACK: should be as straight as possible
- HEAD: participant should look straight ahead (i.e. lower edge of orbit is in line with external auditory meatus [earhole]) – this is the Frankfort plane, should be horizontal.
- The index fingers of both hands should then be placed below the mastoid process on each side. During inspiration the increase in height should be maintained and during expiration a gentle stretch should be applied.
- Then bring down headplate gently, record height to last completed millimetre.

Particular care is needed to ensure that the participant does not stand on tiptoe.

Record any problems which the participant has which may lead to underestimation of height in the `problem with height' box

Any problem = yes = 1

Nurse check – Make sure can set up and take down the stadiometer

3.2.4 Weight and Body composition measurements

NOTE: ***TANITA VISCAN (AB140 M)*** *was initially used(in the first few towns) for the measurement of body composition after which, as the instrument was not reliable, it was replaced with the upright* ***Tanita MA418BC instrument*** *which was used in the examination in the remaining towns.*

IMPORTANT NOTE: Body composition measurements using a body composition analyser will only be done for those participants who have no pacemaker or defibrillator.

- Ask participant if he has a pacemaker, which also includes a defibrillator.
- If he **HAS** a pacemaker or defibrillator, he should **NOT** have measurements with the Tanita body composition analyser, but should be weighed with the **simple Tanita scales**.
- If he does **NOT** have a pacemaker or defibrillator, he should have measurements with the Tanita body composition analyser and should **NOT** be weighed with the simple Tanita scales.

IF Participant has pacemaker/defibrillator

Site	flat surface
Preparation	Participant wearing light clothing and not wearing shoes, all heavy items removed from pockets
Equipment	Tanita scales ONLY(**NOT the Tanita body composition analyser**)

Use of Tanita scales (pacemaker cases):-
Participant should stand straight if possible - leaning to one side (or forwards) can affect the weight recorded. If the weight registered is between two 0.1 kg marks, take the lower one.

IF Participant does not have pacemaker/defibrillator

Use body composition analyser: TANITA SEGMENTAL BODY COMPOSITION ANALYSER BC-418
(for non-pacemaker/defibrillator cases only)

- Enter required information by theTanita BC-418 analyser on the following:-
    - clothing weight (1 kg)
    - age (whole years) from data sheet label
    - gender
    - height (cm)
    - fitness designated as normal.

- Participant stands on scales for weighing and then grasps handles for body composition measurements when instructed to do so.
- Nurse records participant's weight on the data collection sheet
- Printout of all the body composition measurements (weight, %Fat, Fat Mass, Fat Free Mass, Total Body Water, Visceral Fat Rating, Impedance for: Whole Body, Right Leg, Left Leg, Right Arm, Left Arm. Segmental analysis for left and right leg, left and right arm and trunk which includes measures of: %Fat, Fat Mass, Fat Free Mass and Predicted Muscle Mass) is automatically produced and stapled to the datasheet (minimum 2 staples).

TANITA VISCAN (AB140 M) SOP

(INSTRUMENT **ONLY USED IN FIRST FEW TOWNS**. It was replaced with the TANITA MA418BC body composition)

WARNING

- Do not use on participant with pacemakers or other mechanical implants
- Do not shine the laser beam directly into eyes
- Do not expose items sensitive to magnetic forces to the equipment

1. Charge the main unit using the AC adapter
    a. This takes approximately two hours
    b. The green light flashes during charging and remains on once fully charged
    c. The unit will not work while plugged in
2. Insert batteries into the impedance meter if not already done so
    a. The green light should be off when stored and on when away from the main unit
3. The participant should be lying face up on the couch with their hands placed on their chest
4. Expose the abdominal area by 5cm above and below the navel
5. Position the main unit over the abdominal area
    a. The unit sensors should not come into contact with the abdomen
6. Switch the unit on
    a. The unit will automatically switch off if inactive for approximately 2 minutes
7. Select gender in order to initiate the laser

WAIST MEASUREMENT

Instrument will ask whether waist circumference is more than 130 cm or not. If > 130 cm, no waist measurement will be performed.

8. Align the main unit so that the laser is in line with the participant's navel
9. Ask the participant to breathe normally before pressing the 'Start' key
    a. The waist measurement will appear on the screen shortly

FAT MEASUREMENT

NB/ The unit will automatically progress to fat measurement mode. Do not move the unit.

10. Wet the exposed abdominal area with moistened cotton wool or a cloth, on the left and right sides – LEAVE THE NAVEL AREA UNMOISTENED (SEE VISCAN DIAGRAM)
11. Place the impedance meter across the navel of the participant in either direction with the electrodes in contact with the skin
12. Check that the green power LED is illuminated
13. Check that the impedance meter has registered a connection with the participant's body by sounding once with a 'beep'.
14. Align the positioning line on the impedance meter with the laser on the main unit
15. Press the 'Start' key on the main unit
16. The impedance meter sounds twice with a 'beep' when the measurements are complete
17. Clean the impedance meter with an antibacterial wipe and hang back on the main unit hook
18. Check the green power LED is off
19. Turn the main unit off

3.2.5 Waist circumference

Restrictions No restriction, unless participant is unable to stand to have his weight measured.
Site Flat surface
Preparation Participant wearing light clothing with shirt removed or tucked away - standing
Equipment Circumference tape measure

- Waist and hip measurements should be made with the participant standing with feet one foot apart on a marked template.

- The waist should be identified as the mid point between the iliac crest below and the lower edge of the ribs above, i.e. measured on the right side in the mid-axillary line. Mark the mid-point with a water-soluble marker.

- Pass the tape around the waist (for large participants, ask them to help passing the tape around) and reinsert at front, positioning level at the waist.

- Ask participant to breathe out gently and record measurement at the end of expiration to the last completed millimetre.

If you are not satisfied about the accuracy of your measurement, record a 1 in the appropriate coding box `problem'.

Move on to do the first hip circumference, and then repeat the measurement

3.2.6 Hip circumference

Restrictions No restriction, unless participant is unable to stand to have his weight measured.
Site Flat surface
Preparation Participant wearing light clothing with shirt removed or tucked away - standing
Equipment Circumference tape measure

- This is measured by placing the tape measure around the hips at the point of maximum circumference.

- The tape should be horizontal and the gluteal muscles not contracted. Record to the last completed millimetre. If you are not satisfied about the accuracy of your measurement, record a 1 in the appropriate coding box.

- There is no need to ask the participant to breathe out (or in) for this measurement.

- Repeat the measurement

If you are not satisfied about the accuracy of your measurement, record a 1 in the appropriate coding box `problem'.

3.2.7 Upper arm circumference (right side)

Restrictions: No restriction, unless participant is unable to stand.
Site Flat surface
Preparation Participant wearing light clothing with shirt removed or tucked away - standing
Equipment Circumference tape measure

- Ask the participant to bend the Right arm to 90º.
- Identify the acromial process and the lower tip of the olecranon.
- Using the tape measure, identify the midpoint of the upper arm, between the acromial process and the lower tip of the olecranon and mark with a felt tip pen.
- With the arm hanging down loosely at the side the arm circumference should be measured at this point with the tape measure to the last completed millimetre.

If you are not satisfied about the accuracy of your measurement, record a 1 in the appropriate coding box `problem'.

3.2.8 Triceps and Subscapular Skinfold thicknesses (right side)

Restrictions No restriction, unless participant is unable to stand
Site Flat surface
Preparation Participant wearing light clothing with shirt removed or tucked away - standing
Equipment Skinfold caliper (Holtain)

- Check that calliper reading set to zero before starting measurements.
- Explain that you want to measure the thickness of the skin tissue behind the arm and shoulder.
- Measure the **triceps skinfold** at the midpoint of the upper arm as marked above.
- Grasp the skin and subcutaneous tissue without muscle immediately above the mark.
- Apply the skinfold caliper, below the fingers holding the skinfold (continue to hold the skinfold throughout the measurements.
- Skinfold calliper dial should be horizontal for the triceps skinfold measurement.
- Place the callipers around the skinfold – count 1,2,3,4,5 and record the reading
- Measure the **subscapular skinfold** immediately below the tip of the scapula.
- Scapula tip can be made more prominent by pushing arm forward, or by bringing up behind the back into a (gentle!) half-Nelson position
- Mark the site at the scapular tip for the reading
- Grasp the skinfold firmly (not too firmly!) and apply callipers immediately below fingers. Count 1,2,3,4,5 and record the reading
- Skinfold calliper dial will tend to be oblique for the subscapular skinfold measurement
- Record first measurements in each of the two sites and then repeat procedure.

3.2.9 Blood pressure (right arm)

Restrictions No restriction
Site Flat surface
Preparation Participant seated wearing light clothing
Equipment Omron blood pressure recorder, multiple cuffs

The participant should sit down at the measurement table and rest their right arm on the table. This will ensure that the participant is sitting with their upper arm at chest level.

Apply the appropriate size of cuff on the basis of the information on arm circumference (already measured).

Arm circumference < 22 cm	small cuff
Arm circumference 22 to 32 cm	medium cuff
Arm circumference > 32 cm	large cuff

It should be placed around the upper arm with the bladder centre over the artery. Explain that the cuff will inflate and squeeze the arm during measurement.

Use of the instrument

- During initial setting up, the Omron should have been set to take two measurements at one minute intervals.

- This is done by setting the function mode. Do this by pressing on/off button for more than 3 secs while `start' button is also pressed in. To move between function modes F1, F2 and F3, use the start button.

  F1 setting = 2 (number of measurements)
  F2 setting = 0 (delay to first measurement)
  F3 setting = 30 sec (measurement interval)

- Machine should then be set to `auto' and `average' ready for the first measurement.

- To begin the process of blood pressure measurements, press `start' and start the timer to go off in two minutes. The machine will immediately inflate the cuff and begin the first reading. During the measurement the participant:-
  - should not be encouraged to talk
  - should be encouraged to keep the right arm still.

The result of the first reading will appear on the screen and should be written down while waiting for the second reading to be completed. The second measurement will be made after a one minute interval on the automatic cycle. While waiting for the second measurement, entries on cuff, instrument, room temperature and ethnic origin can be recorded.

Once the second reading has been made, the `deflate 1st 2nd 3rd ' button should be pressed successively to read off the second reading and reconfirm the first reading (do NOT record the average).

When the 2 minute alarm goes off, the participant should be asked to stand up and the `start' button pressed again to record two further standing blood pressure readings in exactly the same way as the sitting measurements already described.

(NOTE – it is crucial to write down the results of the sitting readings before the start button is pressed, because these readings will be deleted from the instrument).

While these readings are being made, note whether the participant reports faintness on standing or appears breathless and whether a problem with making four consecutive BP measurements.

3.2.10 Items recorded with blood pressure

- **Cuff** – mark down cuff size used as 1 (small) 2 (medium) and 3 (large).
- **Instrument** – will generally be 1, but a spare machine will be identified.
- **Problem** unable to get 4 consecutive BP readings as in protocol, if this is the case problem = 1
- **Faintness** – participant reports being faint on standing up for BP measurement Y = 1
- **Breathless**– participant appears breathless on standing up for BP measurement Y = 1
- **Room temperature** – from digital thermometer

- **Ethnicity** – almost all participants will be
  - White European = 1.

  Other codes should be based on the appearance of the individual are:-
  - Black African-Caribbean = 2
  - South Asian (Indian, Pakistani, Bangladeshi) = 3
  - Chinese, Japanese, other Eastern = 4
  - Other or unclear = 5

3.2.11 Spirometry

Equipment: Vitalograph Compact II instrument

Preliminary explanation to participant. "We would like to measure the size of your lungs by asking you to blow into this machine.

Contraindications: There are no absolute contraindications to spirometry but common sense should be exercised. Defer spirometry until about six weeks in patients who have had:-

- pneumothorax
- eye, ear chest or abdominal surgery
- myocardial infarction or stroke

Then proceed with instructions

"What I want you to do is to take a very big breath in and to blow out as hard and as long as you can, until your lungs are empty. Watch me."

(Demonstration by nurse using mouthpiece)

Participant then practices once: ensure that:-

- full breath in
- lips tightly around mouthpiece
- long hard blow right to the end

Before measurements made check about use of inhaler use within last 24 hours, and record the time of last inhaler use

Before starting the test enter the participant's 3 digit batch number and press the 'enter' key in order to proceed.

On the main menu press 'FVC test'. The machine will then say 'perform test', indicating that it is ready for the first blow.

We want to record three definitive blows. Encourage the participant with the first blow `big breath in….and out….blow, blow, blow…right to the end'

After each blow, press 'end test' to expedite results and then 'retest' to go on to the next test.

The machine takes a short period to calculate results, after which FVC, FEVI and PEF figures will then be displayed on the screen. Once the results of each of the first two blows are displayed press 'retest' and the machine will display 'perform test' to indicate readiness for the next reading.

Once the result of the third reading is recorded, check the `best test variation' which is recorded on the screen. If best test variation is more than 5% after 3 readings, please take an additional reading by pressing 'retest' again.

If you are not satisfied that participant has done an adequate blow on at least one reading, please enter 1 in the `problem' box.

Once the 3 (4) readings are complete, press 'end test' to return to the main menu. Press 'print' and then 'selected' to print out the results. The printed output should be stapled onto the front of the data sheet in the space provided. Then press the 'new patient' category and agree to delete old patient's results. This will leave the machine waiting for the next participant's serial number to be entered in due course.

Changing printer paper

Open the printer slot.

Feed the paper in from R side from the lower side of the roll with the printer release switch pushed or held over to L side. The paper may slide through, or can use `paper feed' on lower L panel of main menu to drive paper through – this will only function when the printer release switch is pushed to the L side.

In the event of Vitalograph printer failure

Please record the number of readings and the best test variation directly from the screen before leaving the test screen. Then on main menu press option 5, display results, and write down the other parameters on the data sheet.

3.2.12 Grip strength

1. Sit the participant comfortably in a standard chair with legs, back support and fixed arms. Use the same chair for every measurement.
2. Ask them to rest their forearms on the arms of the chair with their wrist just over the end of the arm of the chair – wrist in a neutral position, thumb facing upwards.
3. Demonstrate how to use the Jamar handgrip dynamometer to show that gripping very tightly registers the best score.
4. Start with the right hand.
5. Position the hand so that the thumb is round one side of the handle and the four fingers are around the other side (see picture). The instrument should feel comfortable in the hand. Alter the position of the handle if necessary. One can usually observe if the participant is uncomfortable.
6. The observer should rest the base of the dynamometer on the palm of their hand as the subject holds the dynamometer. The aim of this is to support the weight of the dynamometer, but care should be taken not to restrict its movement.
7. Encourage the participant to squeeze as long and as tightly as possible or until the needle stops rising. Once the needle stops rising the participant can be instructed to stop squeezing.
8. Read grip strength in kilograms from the outside dial and record the result to the nearest 1kg on the data entry form.
9. Repeat measurement in the left hand.
10. Do two further measurements for each hand alternating sides to give three readings in total for each side.
11. The best of the six grip strength measurements is used in statistical analyses so encourage the participants to get as high a score as possible.
12. Ask `which is your dominant hand? (for writing) and record right, left or ambidextrous (people who can genuinely write with both hands).
13. In `dominant' boxes, put 1 in L box or R box to indicate dominance; 1 in both boxes for ambidextrous.

Equipment: Model J00105 JAMAR Hydraulic Hand Dynamometer
Supplier: http://www.lafayetteinstrumenteurope.com/

3.2.13 Completion

- Participant should remain in dressing gown and proceed to workstation 2
- Ensure that any possessions are restored or stored for collection later.
- Records should be taken through to the next workstation.

3.2.14 At end of day

Switch off all instruments; none of workstation 1 instruments require overnight charging.

4.6 Blood sampling

(Detailed blood collection and handling procedures are described in Appendix C of the **BRHS Q30 Physical examination protocol 2010-2012.pdf**)

The blood sample will be taken at the end of the examination, after the electrocardiogram is completed. The blood sample should be taken with the participant lying down.

> We would like to ask you to give us a blood sample for the measurement of factors related to the heart and circulation – would that be OK?

Check whether the participant has had previous problems with blood sampling.
Alcohol swabs will be provided for skin cleaning where needed - allow to dry after use.

A tourniquet may be used throughout. Wear the rubber gloves provided for taking the sample. A 21 gauge butterfly needle (or Sarstedt needle) should generally be used; a supply of 23 gauge needles will also be supplied for more exceptional use.

A maximum of three attempts may be made in the different arms if the participant consents. No further attempt to obtain blood should be made.

There are nine collection tubes which will be prepared in advance. They should be taken in the order specified on the separate protocol, with citrate tubes (x2) taken first followed by serum tubes (x3), followed by EDTA tubes (x3) followed by fluoride-oxalate (x1).

After venepuncture, raise participant's arm and encourage participant to press firmly on cotton wool pad to avoid bruising. Plasters are provided. Please check for elastoplast allergy - if present, use cotton wool and tape.

After venepuncture the tubes should be gently agitated and placed in a rack. Please label the tubes with the appropriate serial number labels, sticking an extra label copy in the space provided on the data sheet. Please record:-

- the full success/partial success/failure of sampling
- the reason for failure if appropriate
- the time of venepuncture
- the time when the participant last ate
- if partial success, which of the `primary' collection tubes have blood in them

Bloods should be sorted by individual participant. The serum tubes will be taken apart for centrifugation at least 30 minutes after collection (see below) and then restored to the main sample base collection.

APPENDIX 1

DATASHEET : UCL LONDON
British Regional Heart Study 2010-2012

Batch / Study #	Name	**Please amend your details if necessary:**
DOB:	Age:	
Tel:		
GP:		

STATION 1 Observer ☐☐ Initials, Time ☐☐ ☐☐ (24 hr)

Sit/Stand 5 times No reas ☐ ref=1 dis=2 ☐☐ ☐☐ secs N at 30sec? ☐ Hands ☐ P/T

Walk 3 metres No reas ☐ ref=1 dis=2 ☐☐ ☐☐ secs Incompl at 30 sec ☐ P/T

Height (cm) ☐☐☐ ☐ Problem? ☐ P/T

Weight ☐☐☐ ☐ (kg) Problem? ☐ P/T

Pacemaker? No → TANITA BODY COMPOSITION

Yes → SCALES ☐☐☐ ☐ (kg)

1. Waist circ 1 (cm) ☐☐☐ ☐ 3. Waist circ 2 ☐☐☐ ☐ Problem? ☐ P/T

2. Hip circ 1 (cm) ☐☐☐ ☐ 4. Hip circ 2 ☐☐☐ ☐ Problem? ☐ P/T

Arm circ R (cm) ☐☐ ☐ Problem? ☐ P/T

1. Triceps R1 (mm) ☐☐ ☐ 3. TricepsR2 ☐☐ ☐ Problem? ☐ P/T

2. SubscapR1 (mm) ☐☐ ☐ 4. SubscapR2 ☐☐ ☐ Problem? ☐ P/T

Cuff size Armcirc < 22 cm = **1 (small)** 22-32 cm = **2 (medium)** >32 cm = **3 (large)**

Blood pressure R	SITTING 1			SITTING 2			STANDING 1			STANDING 2		
Systolic (mmHg)												
Diastolic (mmHg)												
Heart rate (per min)												

Cuff ☐ Instr ☐ Problem? ☐ P/T Faintness ☐ Y =1 Breathless? ☐ Y = 1

Room temp (°C) ☐☐ ☐ Ethnicity WE =1 BAC = 2 SA = 3 Ch/J/O = 4 Other = 5 ☐

Spirometry Instr ☐ Inhal 24hr ☐ Y = 1 Time24hr ☐☐ ☐☐

BTV % ☐☐ ☐ C I ☐ Y=1 Problem? ☐ P/T

Grip Instr ☐

Grip strength (R) ☐☐ ☐☐ ☐☐ Dom ☐ P/T Problem? ☐ P/T

Grip strength (L) ☐☐ ☐☐ ☐☐ Dom ☐ P/T Problem? ☐ P/T

P = Participant T= Technical

STAPLED DATA RECORDS

SPIROMETRY DATA

Ref number

N blows BTV %

FVC

FEV1

FEV0.5

PEF

FEF25-75%

FEF75-85%

FEF25%

FEF50%

FEF75%

BIOIMPEDANCE DATA (TANITA)

TANITA BODY COMPOSITION ANALYSER

Date DD MM YYYY Time (24hr)

Body type Standard=1/Athletic=2

Gender Female=1/Male=2

Age
Height cm
Weight kg
BMI kg/m2
BMR kJ
Kcal
Fat % %
Fat mass kg
FFM kg
TBW kg
Visceral fat rating

IMPEDANCE
Whole Body
Right leg
Left leg
Right arm
Left arm

Segmental Analysis
Right leg
Fat % %
Fat mass kg
FFM kg
Predicted Muscle Mass kg

Left leg
Fat % %
Fat mass kg
FFM kg
Predicted Muscle Mass kg

Right arm
Fat % %
Fat mass kg
FFM kg
Predicted Muscle Mass kg

Left arm
Fat % %
Fat mass kg
FFM kg
Predicted Muscle Mass kg

Trunk
Fat % %
Fat mass kg
FFM kg
Predicted Muscle Mass kg

DATASHEET: CARDIFF UNIVERSITY
British Regional Heart Study 2010-2012

Batch / Study #	Date
DOB:	

BIOIMPEDANCE

Pacemaker? ☐ No = 2 Both Bio impedance measurements

YES = 1→ NO BIOIMPEDANCE MEASUREMENTS GO DIRECT TO BLOOD TEST

NO Pacemaker: BOTH BIOIMPEDANCE MEASUREMENTS

1. Bodystat Instrument ☐ Reading ☐☐☐☐

STATION 2: Observer ID.☐☐ ROOM TEMP☐☐.☐ °C SKIN TEMP☐☐.☐ °C

RIGHT SIDE **Comments**

RCCA □ ……..

RDist □ ……..

PLAQUE ☐ **Y=1**

RCCA ☐ RCCB ☐ RICA ☐ RECA ☐

Cuff size (Armcirc < 22 cm = 1 (small), 22-32 cm = 2 (medium), >32 cm = 3 (large)

RBP1 Sys ☐☐☐ Dia ☐☐☐ HR ☐☐☐

RBP2 Sys ☐☐☐ Dia ☐☐☐ HR ☐☐☐

Left side **Comments**

LCCA □ ……..

LDist □ ……..

PLAQUE ☐ **Y=1**

LCCA ☐ LCB ☐ LICA ☐ LECA ☐

LBP1 Sys ☐☐☐ Dia ☐☐☐ HR ☐☐☐

LBP2 Sys ☐☐☐ Dia ☐☐☐ HR ☐☐☐

Observer ID ☐☐ **Comments**

APBI (PPG)

1.Sys BP R brachial ☐☐☐	Sys BP R toe ☐☐☐	RABPI ☐.☐☐
2.Sys BP R brachial ☐☐☐	Sys BP R toe ☐☐☐	RABPI ☐.☐☐
3.Sys BP R brachial ☐☐☐	Sys BP R toe ☐☐☐	RABPI ☐.☐☐
1.Sys BP L brachial ☐☐☐	Sys BP L toe ☐☐☐	LABPI ☐.☐☐
2.Sys BP L brachial ☐☐☐	Sys BP L toe ☐☐☐	LABPI ☐.☐☐
3.Sys BP L brachial ☐☐☐	Sys BP L toe ☐☐☐	LABPI ☐.☐☐

STATION 3 Observer ID: ☐☐

Comments

PWA (Sphyg)

R BP Sys ☐☐☐ Dia ☐☐☐ HR ☐☐☐

R BP Sys ☐☐☐ Dia ☐☐☐ HR ☐☐☐

Reading 1 Augmentation (mmHg) ☐☐☐ AIx (%) ☐☐☐

Reading 2 Augmentation (mmHg) ☐☐☐ AIx (%) ☐☐☐

PWA (Vicorder)

R BP Sys ☐☐☐ Dia ☐☐☐ HR ☐☐☐

Reading 1 Augmentation (mmHg) ☐☐☐ AIx (%) ☐☐☐

Reading 2 Augmentation (mmHg) ☐☐☐ AIx (%) ☐☐☐

Comments

R BP1 Sys ☐☐☐ Dia ☐☐☐ HR ☐☐☐

R BP2 Sys ☐☐☐ Dia ☐☐☐ HR ☐☐☐

PWV (Sphyg) **Accepted**

1 CAR-FEM Dis ☐☐☐ Prox ☐☐☐(mm) ☐☐.☐ ± ☐.☐m/s ☐

2 CAR-FEM Dis ☐☐☐ Prox ☐☐☐(mm) ☐☐.☐ ± ☐.☐m/s ☐

3 CAR-FEM Dis ☐☐☐ Prox ☐☐☐(mm) ☐☐.☐ ± ☐.☐m/s ☐

4 CAR-FEM Dis ☐☐☐ Prox ☐☐☐(mm) ☐☐.☐ ± ☐.☐m/s ☐

PWV (Vicorder)

1 CAR-FEM Dis ☐☐.☐ Prox ☐☐.☐(cm) ☐☐.☐ m/s

2 CAR-FEM Dis ☐☐.☐ Prox ☐☐.☐(cm) ☐☐.☐ m/s

STATION 4 Observer ID ☐☐ ☐ Refusal=1 ☐ Prob =1 ORAL HEALTH

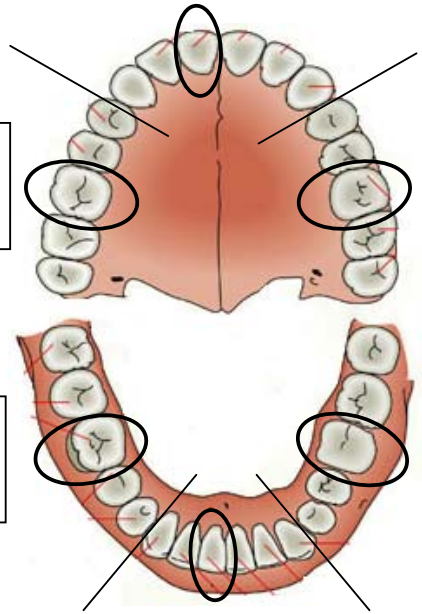
I. TOTAL NUMBER OF NATURAL TEETH: **Upper** ☐☐ **Lower** ☐☐ Batch No: ☐☐☐

II. PERIODONTAL POCKET

2. Mesial = ☐☐
Distal = ☐

1. Mesial = ☐☐
Distal = ☐

3. Mesial = ☐☐
Distal = ☐



6. . Mesial = ☐☐
Distal = ☐

4. . Mesial = ☐☐
Distal = ☐

5. . Mesial = ☐☐
Distal = ☐

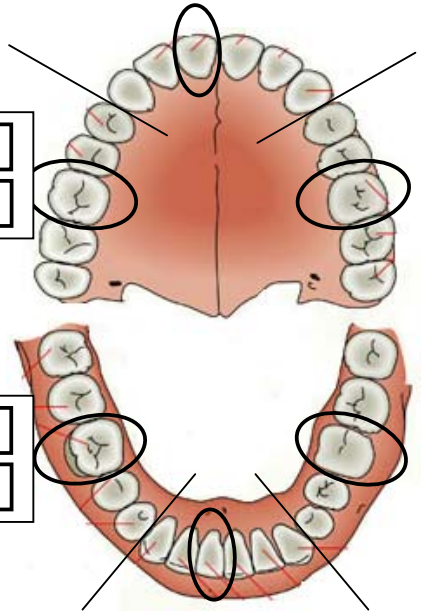
Score -
0 = Up to 3.5 mm (first probe band)
1 = 4 to 5.5 mm (first dark band)
2 = 6 to 8.5 mm (between two dark bands)
3 = 9 to 11.5 mm (second dark band)
8 = Unscorable
9 = Missing

III. GINGIVAL BLEDING

2. . Mesial = ☐
Distal = ☐

1. . Mesial = ☐
Distal = ☐

3. . Mesial = ☐
Distal = ☐



6. . Mesial = ☐
Distal = ☐

4. . Mesial = ☐
Distal = ☐

5. . Mesial = ☐
Distal = ☐

Score -
Yes = 1
No = 0
Missing = 9

BLOODS

Blood test Success? ☐ Full = 2 Part = 1 None = 0 Problem? ☐ Refusal = 1 Technical = 2

Time (blood test) ☐☐☐☐ (24 hour) Fasting instructions followed? ☐ Yes= 1 No=2 Diabetes =3

Time last eaten? ☐☐☐☐ (24 hour) Day last eaten ☐ Today = 1, Yesterday = 2

ID AFFIX BLOOD LABEL HERE

Incomplete sample – mark completed tubes with 1

☐	☐	☐	☐	☐	☐	☐	☐	☐
A	B	C	DE	FJ	K	LN	PS	T

ECG

Electrocardiogram ☐ Yes= 1 No=2

Ankle oedema: Left ☐ Right ☐ Yes= 1 No=2

PHYSICAL ACTIVITY SURVEY

Would you be prepared to wear this small monitor (which will measure how much activity you do) around your waist for the next week or so and then post it back to us?

Actigraph? ☐ Yes= 1 No =2 Tel Number: _____ (if not already recorded on the front of the datasheet)

If activity survey has not been **prepacked**, please use a spare and record the Monitor Serial number below. Ensure the participant ID is recorded on the questionnaire, diary & monitor.
If no telephone number is provided, the participant will be unable to take part in the Activity Survey.

ID: AFFIX BLOOD LABEL HERE

M	A	T	2	C	0												

CONSENT

We will arrange to have your blood sample checked for cholesterol and other factors which are important for heart disease risk. The results of the blood tests and other measurements will be sent back to your doctor in the next four to five weeks. If any of the results give cause for concern, you will be asked to make an appointment with your doctor.

1. Do you agree to us passing the test results to your doctor?

☐$_1$ Agreed ☐$_2$ Not Agreed

Part of your blood sample will be frozen and kept for special scientific studies of factors affecting heart disease risk, which may help us to understand how to prevent heart disease in the future. Among the factors we may need to study will be the way in which genetic factors affect heart disease risk.

2. Would you allow us to use your sample in this way?

☐$_1$ Agreed ☐$_2$ Not Agreed

Following the future health of all the men taking part remains a very important part of the study. However, because of new data protection laws, we are only able to continue to do this if you give us **specific written permission**.

In order to update your health record effectively, we need to obtain routine information from your family doctor and, where appropriate, from hospitals and several National Health Service agencies listed below*. We are particularly concerned to know about illnesses of the heart and circulation, diabetes, cancer and other disabling conditions. Even if you do not have any of these conditions, the review of your medical records is of very great importance to us. The information we obtain is kept securely and is only seen by members of our small research team.

3. Do you agree to us following your future health through your health records?

☐$_1$ Agreed ☐$_2$ Not Agreed

I agree to allow the Research Team to continue to study my health in accordance with the criteria above. I understand that any details recorded will be treated in complete confidence.

Signed: _____

Print name: _____

Date: _____

*The agencies related to the National Health Service are:-

-the NHS Information Centre
-the General Register Office
-the National Cancer Intelligence Centre
-the Primary Care Patient Registration Service

British Regional Heart Study
Department of Primary Care & Population Health
UCL Medical School
Royal Free Campus
Rowland Hill Street.
London NW3 2PF

Tel: 020 7830 2335 Fax: 020 7794 1224

http://www.ucl.ac.uk/pcph/research/brhs