

UK Biobank

Pain web questionnaire

Version 2.1

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This document details the rationale and procedure for administration of the pain web-based questionnaire for UK Biobank.

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1 Introduction

The impact of chronic pain on human health

Chronic pain is maladaptive and a major cause of human suffering. Chronic pain can be clinically defined as pain lasting more than 3 months and affects 1 in 5 of the general population (Breivik, Collett et al. 2006). In many cases such pain is exaggerated in relation to the degree of tissue injury and is poorly responsive to analgesics, in marked contrast to acute pain. Current treatments have poor efficacy and tolerability (Grosser, Woolf et al. 2017). The prevalence of chronic pain will increase as predisposing conditions (such as diabetes mellitus and malignancy) become more common and as a consequence of the ageing population. Chronic pain has a major economic impact due to the use of health resources and impact on ability to work. Chronic pain can be broadly divided into sub-types: inflammatory/nociceptive pain (such as pain associated with arthritis), neuropathic pain (which arises as a consequence of injury to the sensory nervous system e.g. diabetic neuropathy) and sensitised pain states (in which chronic pain arises in the absence of overt pathology e.g. fibromyalgia). It is increasingly understood that pain is not a 'unitary' phenomenon but a multi-dimensional experience combining sensory discriminative features (e.g. where the pain is and the quality of the pain) with important affective components. Pain is associated with co-morbidities such as anxiety, depression and sleep disturbance all of which enhance suffering (Colloca, Ludman et al. 2017).

2 Scientific rationale

There are specific challenges associated with phenotyping pain since patients may suffer from multiple pains of diverse aetiologies with the additional key interaction of psychological factors that can make the perception and thus impact of chronic pain, considerably worse. It is essential to carefully record the duration, location, intensity and quality of pain as well as the temporal relationship to predisposing factors and co-morbidities (such as sleep, anxiety and depression). Whilst UK Biobank gathered data on pain during the baseline assessment, the level of phenotyping is not sufficient to undertake any pain-related GWAS.

The need to capture these various data led to the development of the current questionnaire in consultation with a group of leaders in the field (a list of the main contributors and their affiliations is included in Section 3).

The questionnaire incorporates a number of elements which have been previously tested and validated in cohorts of patients suffering from pain as well as in population-based studies. These questionnaires are all well validated and in routine use by pain researchers and/or clinical practitioners and are fully aligned with major international consortia studying chronic pain (such as DOLORisk, Generation Scotland and the International Diabetic Neuropathy Consortium).

A detailed guide to the contents of the questionnaire is included in Section 4. Here we provide a brief overview with a guide to the approximate numbers of questions in each section of the questionnaire (as the exact number depends on answers provided). It is very unlikely that participants will need to complete every question in every section:

- Section A: Introductory checks. 3 questions.
- Section B: Medical conditions you may have. 14-19 questions.
- Section C: Location of pain. 8-38 questions.
- Section D: Nature of pain. 0-7 questions.
- Section E: Headache. 1-19 questions.
- Section F: Legs and feet. 0-15 questions.
- Section G: Impact of pain. 0-12 questions.
- Section H: Health outcomes. 6 questions.
- Section I: Current depression. 9-10 questions.
- Section J: Fatigue. 1-16 questions.
- Section K. End page.

We have used the following principles:

- We have focussed on chronic pain which is the leading cause of disability and used the widely accepted definition of pain present for more than 3 months duration.
- For efficiency we have applied disease specific pain questionnaires in a targeted fashion, e.g. the Michigan Neuropathy Screening Instrument (Feldman, Stevens et al. 1994) is only asked of respondents that have (or are at risk of) peripheral neuropathy.
- The number of body regions has been extended from those asked in the UK Biobank baseline questionnaire to cover all body regions commonly affected by chronic pain.
- Because many people have multiple pains we have asked respondents to focus on the pain that 'bothers them most' in order to improve specificity.
- Pain intensity, pain interference and pain qualities are captured using the Douleur Neuropathic 4 (DN4) (Bouhassira, Attal et al. 2005) and questions taken from the Brief Pain Inventory (BPI) (Cleeland and Ryan 1994, Zelman, Gore et al. 2005), both of which have been widely used and extensively validated. However, given questions have been omitted from the BPI, no validity based on the BPI scoring can be claimed.
- We have also included measures of quality of life which are validated in pain cohorts (EQ-5D-5L) (Group. 1990) and also assessment of anxiety and depression (PHQ-9) (Kroenke, Spitzer et al. 2001), a common co-morbidity with chronic pain.

3 List of main contributors

Professor David Wynnick, Professor of Molecular Medicine, University of Bristol.

Professor Blair Smith, Head of Population Sciences Division and Professor of Population Science, University of Dundee.

Professor David Bennett, Professor of Neurology and Neurobiology, University of Oxford.

Professor Gary Macfarlane, Clinical Chair in Epidemiology, University of Aberdeen.

4 Content

Details of rationale and tools used in sensation and chronic pain questionnaire are shown on the following page.

The full list of questions can be found in Appendix 1.

Domain/question topic	Purpose	Source/tool	Notes about source/tool	Reference
Section A: Introductory checks.	To confirm personal details.	Bespoke	--	None
Section B: Medical conditions you may have	To ascertain whether the participant has had a diagnosis of any of the common conditions associated with chronic pain.	Bespoke	--	None
Section C: Location of pain	To capture information about the location of pain.	Bespoke, based on the UK Biobank location of pain questions.	Simplified survey format for use in epidemiological studies.	None
		American College of Rheumatology 2010 preliminary diagnostic criteria for fibromyalgia		(Wolfe, Clauw et al. 2011)
Section D: Nature of pain	To obtain self-report data on neuropathic pain.	Douleur Neuropathique 4 (DN4) (excluding clinician assessment)	An easy-to-use screening tool that is reliable for discriminating between neuropathic and nociceptive pain conditions Widely used in both research and clinical settings.	(Bouhassira, Attal et al. 2005)
Section E: Headache	To obtain self-report data on headache symptoms and severity.	Bespoke section based on the questions used in the American Migraine Prevalence and Prevention (AMPP) Study	Simplified version of questionnaire utilised in a large-scale population-based study.	(Lipton, Bigal et al. 2007)
Section F: Legs and feet	To screen for the presence of diabetic neuropathy.	Michigan Neuropathy Screening Instrument (MNSI)	Commonly used assessment tool.	(Feldman, Stevens et al. 1994)

Section G: Impact of pain	To assess the severity of pain and its impact on functioning.	Bespoke section which includes some questions found in the Brief Pain Inventory (Short Form).	This section includes questions taken from the BPI. However, no validity based on the BPI scoring can be claimed.	None
Section H: Health outcomes	To measure health-related quality of life.	EQ-5D-5L	A standardised instrument widely used as a measure of health outcome.	(Group. 1990)
Section I: Current depression	To screen for likely presence / absence and severity of current depression. This will allow assessments of how depression is related to other illnesses or situations.	Patient Health Questionnaire-9 (PHQ-9)	An established research and clinical tool. All or part of the scale has previously been completed at baseline assessment and in the mental health questionnaire	(Kroenke, Spitzer et al. 2001)
Section J: Fatigue	To measure the severity of fatigue symptoms.	Bespoke questions on Chronic Fatigue Syndrome, plus Fatigue Severity Scale (FSS)		(Krupp, LaRocca et al. 1989)

5 Piloting

Prior to inviting all participants with a contact email address (approximately 320,000 – 340,000) to complete it, UK Biobank piloted this questionnaire with 10,000 participants to ensure the platform and procedures were adequately robust in terms of acceptability of content and length.

6 Administration

6.1 UK Biobank's re-contact approach for those participants with an email address as follows:

- an initial invitation email (which included a hyperlink to their personalised questionnaire);
- a reminder email to non-responders sent two weeks after the initial invite;
- a reminder to partial responders (i.e. who only completed part of the questionnaire) two weeks after they started the questionnaire;
- a 'last-chance' reminder sent to non-responders four months after the initial invite.

6.2 69.9% of participants completed the questionnaire in less than 20 minutes.

6.3 Overall, 335,587 participants were sent an email invitation, of whom 166,733 (49.7%) fully completed the questionnaire (as of November 2019). A further 495 participants accessed the questionnaire via the participant website without having received an email invite (because they have not provided UK Biobank with a valid email address or completed the questionnaire via the participant website prior to an invite being sent).

6.4 Participants for whom we do not have an email address were encouraged via the annual newsletter (sent Q3 2017) to complete the online questionnaire by logging directly onto the participant website.

6.5 Email invitations are also routinely sent to those participants who have recently updated their email address (and who have not yet completed the questionnaire). We therefore anticipate that data will continue to accrue for a small number of participants.

6.6 Please note that UK Biobank has identified a small number of possible mismatches in the linkage of the questionnaire (e.g., where participants who share an email address, or a computer/tablet may have completed their partner's questionnaire). These data have not been released.

7 References

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Appendix 1: Questions and format of the questionnaire

Q. No	Field ID	Stem	Responses
INTRO	N/A	<p>Chronic pain (pain lasting more than 3 months) is a major cause of human suffering and affects 1 in 5 of the general population. We need to know more about the causes of chronic pain if we are going to improve current treatments or develop new treatments.</p> <p>UK Biobank provides a unique opportunity to better understand chronic pain. We hope to combine the results of this questionnaire with other information you have provided to gain a deeper understanding of the risk factors, triggers and underlying causes of the different kinds of chronic pain.</p> <p>Please answer all the following questions even if you do not suffer from chronic pain – having information from people who do not experience chronic pain is critical to allow us to better understand the information from people who do experience chronic pain.</p> <p>The questionnaire is split into sections, each section having a slightly different purpose. The questionnaire will automatically skip questions that do not apply to you so don't worry if it looks like you missed questions out. However, you may notice that there is still some overlap in several questions; this is necessary to ensure that all the information we collect is completely reliable. We would therefore be grateful if you can answer all the questions you are asked, even if you think you have already provided the information.</p>	Next
	N/A	<p>To help you as you work your way through the questionnaire:</p> <ul style="list-style-type: none"> • Most devices will allow you to click or tap the description beside a choice button to select it. Click or tap on this sentence. Click /tap here. and over here. • A slider allows you to select a value from a range. Click or tap or drag the slider pointer until your chosen value is displayed. • The progress bar at the bottom of each page (see below) is split into blocks, with each block representing a different section of the questionnaire. 	Next

Section A: Checks			
Q. No	Field ID	Stem	Response
AIntro	N/A	This questionnaire is participant specific. It should only be completed by the person named on the email invite OR the person who logged into the participant website. First, we need to check a few things.	
AIntro A1	N/A	Please confirm your month and year of birth	01 = January 02 = February 03 = March 04 = April 05 = May 06 = June 07 = July 08 = August 09 = September 10 = October 11 = November 12 = December
A2	N/A	Please confirm your sex	01 = Male 02 = Female
AINTROrestart	N/A	Now let's continue from where you left off....	
ACLOSE	N/A	Now let's start the questionnaire.	

Section B: Medical Conditions			
Q. No	Field ID	Stem	Response
BINTRO	N/A	Let's start with a few general questions about your health and pain that you may have.	
BLOCKB1	N/A	Have you ever been told by a doctor that you have had any of the following conditions?	
B1a	120000	Osteoarthritis affecting one or more joints (e.g. hip, knee, shoulder)	01=Yes 00=No DK=Do not know DA=Prefer not to answer
B1b	120001	Rheumatoid arthritis affecting one or more joints	01=Yes 00=No DK=Do not know DA=Prefer not to answer
B1c	120002	Cancer pain	01=Yes 00=No DK=Do not know DA=Prefer not to answer
B1d	120003	Carpal tunnel syndrome	01=Yes 00=No DK=Do not know DA=Prefer not to answer

B1e	120004	Complex regional pain syndrome (also known as CRPS)	01=Yes 00=No DK=Do not know DA=Prefer not to answer
B1f	120005	Chronic post-surgical pain	01=Yes 00=No DK=Do not know DA=Prefer not to answer
B1fi	120006	When was this surgery performed?	Allows selection of an integer between YOB and current year DK=Do not know DA=Prefer not to answer
B1g	120007	Diabetes (Type I or Type II)	01=Yes 00=No DK=Do not know DA=Prefer not to answer
B1h	120008	Any cause of nerve damage/neuropathy other than diabetic neuropathy	01=Yes 00=No DK=Do not know DA=Prefer not to answer
B1i	120009	Fibromyalgia syndrome	01=Yes 00=No DK=Do not know DA=Prefer not to answer
B1j	120010	Chronic Fatigue Syndrome or Myalgic Encephalomyelitis (M.E.)	01=Yes 00=No DK=Do not know DA=Prefer not to answer
B1k	120011	Gout	01=Yes 00=No DK=Do not know DA=Prefer not to answer
B1ki	120012	Do you think you are currently experiencing a gout flare?	01=Yes 00=No DK=Do not know DA=Prefer not to answer
B1kii	120013	Is your gout causing you to have a swollen joint now?	01=Yes 00=No DK=Do not know DA=Prefer not to answer
B1kiii	120014	Is your gout causing you to have a warm joint now?	01=Yes 00=No DK=Do not know DA=Prefer not to answer
B1kiv	120015	What was the average pain from your gout in the past 24 hours while you were resting? <i>Please indicate a number from 0 to 10, with 0 meaning "no pain" and 10 meaning "worst possible pain"</i>	0-10 VAS with 0 marked as no pain and 10 marked as worst possible pain DA=Prefer not to answer

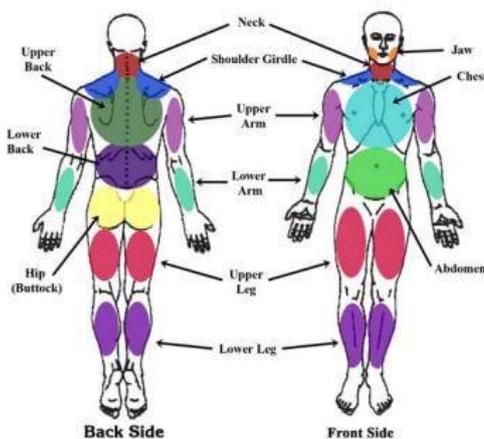
B1l	120016	Migraine	01=Yes 00=No DK=Do not know DA=Prefer not to answer
B1m	120017	Pelvic pain	01=Yes 00=No DK=Do not know DA=Prefer not to answer
B1n	120018	Post herpetic neuralgia (pain after shingles)	01=Yes 00=No DK=Do not know DA=Prefer not to answer

Section C: Location of pain			
Q. No	Field ID	Stem	Response
CINTRO	N/A	This section is about where you experience pain.	
Pain over the last three months			
C1	120019	Are you troubled by pain or discomfort, either all the time or on and off, that has been present for more than 3 months ?	01=Yes 00=No DK=Do not know DA=Prefer not to answer
C2	120020	How long have you been suffering with this pain or discomfort?	01=3-12 months 02=1-5 years 03=More than 5 years DK=Do not know DA=Prefer not to answer
BLOCKC3	N/A	Now we are going to ask you about where you experience this pain or discomfort. In the last 3 months have you experienced pain or discomfort in any of the following areas?	
C3a	120021	Pain all over the body	01=Yes 00=No DK=Do not know DA=Prefer not to answer
C3ai	120022	Thinking about the last 24 hours , how would you rate your pain on a 0-10 scale, where 0 is 'no pain' and 10 is 'pain as bad as it could be'?	0-10 VAS with 0 marked as no pain and 10 marked as pain as bad as it could be. DA=Prefer not to answer
C3b	120023	Head	01=Yes 00=No DK=Do not know DA=Prefer not to answer
C3c	120024	Face	01=Yes 00=No DK=Do not know DA=Prefer not to answer

C3d	120025	Neck or shoulders	01=Yes 00=No DK=Do not know DA=Prefer not to answer
C3e	120026	Back	01=Yes 00=No DK=Do not know DA=Prefer not to answer
	N/A	In the last 3 months have you experienced pain or discomfort in any of the following areas?	
C3f	120027	Stomach or abdomen	01=Yes 00=No DK=Do not know DA=Prefer not to answer
C3g	120028	Hips	01=Yes 00=No DK=Do not know DA=Prefer not to answer
C3h	120029	Knees	01=Yes 00=No DK=Do not know DA=Prefer not to answer
C3i	120030	Arms	01=Yes 00=No DK=Do not know DA=Prefer not to answer
	N/A	In the last 3 months have you experienced pain or discomfort in any of the following areas?	
C3j	120031	Hands	01=Yes 00=No DK=Do not know DA=Prefer not to answer
C3k	120033	Feet	01=Yes 00=No DK=Do not know DA=Prefer not to answer
C3ki	120032	Is the pain present in both your feet?	01=Yes 00=No DK=Do not know DA=Prefer not to answer
C3l	120034	Legs	01=Yes 00=No DK=Do not know DA=Prefer not to answer
C3m	120035	Chest	01=Yes 00=No DK=Do not know DA=Prefer not to answer
C3n	120036	(An)other part(s) of your body	01=Yes 00=No DA=Prefer not to answer

C3bi	120023	Thinking about the last 24 hours , how would you rate your head pain on a 0-10 scale, where 0 is 'no pain' and 10 is 'pain as bad as it could be'?	0-10 VAS with 0 marked as no pain and 10 marked as pain as bad as it could be. DA=Prefer not to answer
C3ci	120024	Thinking about the last 24 hours , how would you rate your facial pain on a 0-10 scale, where 0 is 'no pain' and 10 is 'pain as bad as it could be'?	0-10 VAS with 0 marked as no pain and 10 marked as pain as bad as it could be. DA=Prefer not to answer
C3di	120025	Thinking about the last 24 hours , how would you rate your neck or shoulder pain on a 0-10 scale, where 0 is 'no pain' and 10 is 'pain as bad as it could be'?	0-10 VAS with 0 marked as no pain and 10 marked as pain as bad as it could be. DA=Prefer not to answer
C3ei	120026	Thinking about the last 24 hours , how would you rate your back pain on a 0-10 scale, where 0 is 'no pain' and 10 is 'pain as bad as it could be'?	0-10 VAS with 0 marked as no pain and 10 marked as pain as bad as it could be. DA=Prefer not to answer
C3fi	120027	Thinking about the last 24 hours , how would you rate your stomach or abdomen pain on a 0-10 scale, where 0 is 'no pain' and 10 is 'pain as bad as it could be'?	0-10 VAS with 0 marked as no pain and 10 marked as pain as bad as it could be. DA=Prefer not to answer
C3gi	120028	Thinking about the last 24 hours , how would you rate your hip pain on a 0-10 scale, where 0 is 'no pain' and 10 is 'pain as bad as it could be'?	0-10 VAS with 0 marked as no pain and 10 marked as pain as bad as it could be. DA=Prefer not to answer
C3hi	120029	Thinking about the last 24 hours , how would you rate your knee pain on a 0-10 scale, where 0 is 'no pain' and 10 is 'pain as bad as it could be'?	0-10 VAS with 0 marked as no pain and 10 marked as pain as bad as it could be. DA=Prefer not to answer
C3ii	120030	Thinking about the last 24 hours , how would you rate your arm pain on a 0-10 scale, where 0 is 'no pain' and 10 is 'pain as bad as it could be'?	0-10 VAS with 0 marked as no pain and 10 marked as pain as bad as it could be. DA=Prefer not to answer
C3ji	120031	Thinking about the last 24 hours , how would you rate your hand pain on a 0-10 scale, where 0 is 'no pain' and 10 is 'pain as bad as it could be'?	0-10 VAS with 0 marked as no pain and 10 marked as pain as bad as it could be. DA=Prefer not to answer
C3kii	120033	Thinking about the last 24 hours , how would you rate your foot pain on a 0-10 scale, where 0 is 'no pain' and 10 is 'pain as bad as it could be'?	0-10 VAS with 0 marked as no pain and 10 marked as pain as bad as it could be. DA=Prefer not to answer
C3li	120034	Thinking about the last 24 hours , how would you rate your leg pain on a 0-10 scale, where 0 is 'no pain' and 10 is 'pain as bad as it could be'?	0-10 VAS with 0 marked as no pain and 10 marked as pain as bad as it could be.

			DA=Prefer not to answer
C3mi	120035	Thinking about the last 24 hours , how would you rate your chest pain on a 0-10 scale, where 0 is 'no pain' and 10 is 'pain as bad as it could be'?	0-10 VAS with 0 marked as no pain and 10 marked as pain as bad as it could be. DA=Prefer not to answer
C4	120037	Which one of the pains you have experienced in the last 3 months has bothered you most?	01=Headache 02=Facial pain 03=Neck or shoulder pain 04=Back pain 05=Stomach or abdominal pain 06=Hip pain 07=Knee pain 08=Pain in arms 09=Pain in hands 10=Pain in the feet 11=Chest pain 12=Legs NN=None of the above DA=Prefer not to answer
Pain over the last week			
Widespread pain			
C5INTRO	N/A	You may notice that the next few questions are similar to the ones you have just answered. This information is important so that we can find out a bit more about your recent pain .	
C5a	120038	Have you been troubled by pain or tenderness during the past week?	01=Yes 00=No DK=Do not know DA=Prefer not to answer
C5b	120039	Please indicate if you have had pain or tenderness during the past week in each of the areas listed below.	01=Shoulder girdle, left 02=Shoulder girdle, right 03=Upper arm, left 04=Upper arm, right 05=Lower arm, left 06=Lower arm, right 07=Hip (buttock), left 08=Hip (buttock), right 09 Upper leg, left 10=Upper leg, right 11=Lower leg, left 12=Lower leg, right 13=Jaw, left 14=Jaw, right 15=Chest 16=Abdomen 17=Neck 18=Upper back 19=Lower back NN=None of these areas DA=Prefer not to answer



Symptom Severity			
BLOCKC6	N/A	For each of these 3 symptoms, indicate the level of severity over the past week.	
C6a	120040	Fatigue	01=No problem 02=Slight or mild problems: generally mild or intermittent 03=Moderate: considerable problems; often present and/or at a moderate level 04=Severe: pervasive, continuous, life disturbing problems DA=Prefer not to answer
C6b	120041	Waking unrefreshed	01=No problem 02=Slight or mild problems: generally mild or intermittent 03=Moderate: considerable problems; often present and/or at a moderate level 04=Severe: pervasive, continuous, life disturbing problems DA=Prefer not to answer
C6c	120042	Cognitive symptoms <i>For example, problems with memory, thinking skills and/or concentration.</i>	01=No problem 02=Slight or mild problems: generally mild or intermittent 03=Moderate: considerable problems; often present and/or at a moderate level 04=Severe: pervasive, continuous, life disturbing problems DA=Prefer not to answer
BLOCKC7	N/A	During the past 6 months have you had any of the following symptoms?	
C7a	120043	Pain or cramps in lower abdomen	01=Yes 00=No DA=Prefer not to answer
C7b	120044	Depression	01=Yes 00=No DA=Prefer not to answer
C7c	120045	Headache	01=Yes 00=No DA=Prefer not to answer

Section D: Nature of pain			
Q. No	Field ID	Stem	Responses
DINTRO	N/A	The next section is about what your pain feels like. Please answer this question by thinking about the pain that bothers you most , i.e. your *** **.*.	
BLOCKD1	N/A	Does the pain have one or more of the following characteristics?	
D1a	120046	Burning	01=Yes 00=No DK=Do not know DA=Prefer not to answer
D1b	120047	Painful cold	01=Yes 00=No DK=Do not know DA=Prefer not to answer
D1c	120048	Electric shocks	01=Yes 00=No DK=Do not know DA=Prefer not to answer
BLOCKD2	N/A	Is the pain associated with one or more of the following symptoms in the same area?	
D2a	120049	Tingling	01=Yes 00=No DK=Do not know DA=Prefer not to answer
D2b	120050	Pins and needles	01=Yes 00=No DK=Do not know DA=Prefer not to answer
D2c	120051	Numbness	01=Yes 00=No DK=Do not know DA=Prefer not to answer
D2d	120052	Itching	01=Yes 00=No DK=Do not know DA=Prefer not to answer

Section E: Headache			
Q. No	Field ID	Stem	Responses
EINTRO	N/A	Now we would like to know a bit about headaches	
E1	120053	Have you ever had bad and/or recurring headaches at any time in your life?	01=Yes 00=No DA=Prefer not to answer
E2	120054	On how many days in the past 3 months did you have a headache <i>of any severity</i> ? If a headache lasted more than 1 day, count each day.	EBOX2 allows an integer between 0 to 90 EBOX2 is suffixed “days” DA=Prefer not to answer
E3	120055	Think about the time when those headaches were at their worst. About how long ago did those headaches begin?	EBOX3a allows an integer between 0 and (current age – 4) EBOX3a is prefixed “About” and suffixed “years ago” EBOX3b allows an integer between 0 and 11 EBOX3b is prefixed “or about” and suffixed “months ago.” DA=Prefer not to answer
E3a	120056	About how long ago did those headaches end?	EBOX3aa allows an integer between 0 and 80 EBOX3aa is prefixed “About” and suffixed “years ago” EBOX3ab allows an integer between 0 and 11 EBOX3ab is prefixed “or about” and suffixed “months ago.” DA=Prefer not to answer
E4	120057	When your headaches were at their worst, about how many days a month did you have a headache?	EBOX4 allows an integer between 0 and 31. EBOX4 is suffixed “days” DA=Prefer not to answer
BLOCKE5	N/A	When your headaches were at their worst, did you experience any of the following:	
E5a	120058	The pain was worse on just one side	01=Never 02=Rarely 03=Less Than Half the Time 04=Half the Time or More DA=Prefer not to answer
E5b	120059	The pain was pounding, pulsating or throbbing	01=Never 02=Rarely 03=Less Than Half the Time 04=Half the Time or More DA=Prefer not to answer

E5c	120060	The pain was moderate or severe	01=Never 02=Rarely 03=Less Than Half the Time 04=Half the Time or More DA=Prefer not to answer
E5d	120061	The pain was made worse by routine activities such as walking or climbing stairs	01=Never 02=Rarely 03=Less Than Half the Time 04=Half the Time or More DA=Prefer not to answer
E5e	120062	You felt, or were sick	01=Never 02=Rarely 03=Less Than Half the Time 04=Half the Time or More DA=Prefer not to answer
E5f	120063	Light bothered you (more than when you did not have headaches)	01=Never 02=Rarely 03=Less Than Half the Time 04=Half the Time or More DA=Prefer not to answer
E5g	120064	Sound bothered you (more than when you did not have headaches)	01=Never 02=Rarely 03=Less Than Half the Time 04=Half the Time or More DA=Prefer not to answer
BLOCKE6	N/A	Do you or did you develop any of the following warning symptoms before or near the onset of your headache?	
E6a	120065	I develop visual changes such as spots, lines and heat waves or greying out of my vision.	01=Yes 00=No DA=Prefer not to answer
E6ai	120066	My visual changes develop slowly over several minutes or more.	01=Yes 00=No DA=Prefer not to answer
E6b	120067	I develop tingling or numbness in my face arms or legs.	01=Yes 00=No DA=Prefer not to answer
E6bi	120068	The tingling and/or, numbness spreads slowly over several minutes over some part of my body.	01=Yes 00=No DA=Prefer not to answer
E6c	120069	I develop tiredness, yawning, concentration problems, changes in mood or appetite, irritability, neck stiffness, light or sound sensitivity.	01=Yes 00=No DA=Prefer not to answer
E7	120070	On how many days in the last 3 months did your headaches interfere with your ability to work, study or enjoy life?	Allows selection of an integer from 0 to 90 DA=Prefer not to answer

Section F: About your legs and feet			
Q. No	Field ID	Stem	Responses
FINTRO	N/A	We would now like to ask about the feeling in your legs and feet. Select yes or no based on how you usually feel.	
F1	120071	Are your legs and/or feet numb?	01=Yes 00=No DK=Do not know DA=Prefer not to answer
F2	120072	Do you ever have any burning pain in your legs and/or feet?	01=Yes 00=No DK=Do not know DA=Prefer not to answer
F3	120073	Are your feet too sensitive to touch?	01=Yes 00=No DK=Do not know DA=Prefer not to answer
F4	120074	Do you get muscle cramps in your legs and/or feet?	01=Yes 00=No DK=Do not know DA=Prefer not to answer
F5	120075	Do you ever have any prickling feelings in your legs or feet?	01=Yes 00=No DK=Do not know DA=Prefer not to answer
F6	120076	Does it hurt when the bed covers touch your skin?	01=Yes 00=No DK=Do not know DA=Prefer not to answer
F7	120077	When you get into the bath or shower, are you able to tell the hot water from the cold water?	01=Yes 00=No DK=Do not know DA=Prefer not to answer
F8	120078	Have you ever had an open sore on your foot?	01=Yes 00=No DK=Do not know DA=Prefer not to answer
F9	120079	Has the doctor ever told you that you that you have diabetic neuropathy?	01=Yes 00=No DK=Do not know DA=Prefer not to answer

F10	120080	Do you feel weak all over most of the time?	01=Yes 00=No DK=Do not know DA=Prefer not to answer
F11	120081	Are your symptoms worse at night?	01=Yes 00=No DK=Do not know DA=Prefer not to answer
F12	120082	Do your legs hurt when you walk?	01=Yes 00=No DK=Do not know DA=Prefer not to answer
F13	120083	Are you able to sense your feet when you walk?	01=Yes 00=No DK=Do not know DA=Prefer not to answer
F14	120084	Is the skin on your feet so dry that it cracks open?	01=Yes 00=No DK=Do not know DA=Prefer not to answer
F15	120085	Have you ever had an amputation?	01=Yes 00=No DK=Do not know DA=Prefer not to answer

Section G: Impact of pain			
Q. No	Field ID	Stem	Responses
GINTRO	N/A	Now we would like to know a bit about how your pain impacts on your life. Please answer this question by thinking about the pain that bothers you most , i.e. your *** ****.	Please answer this question by thinking about the pain that bothers you most , i.e. your *** ****.
G1	120086	Please rate your pain by selecting the number that best describes your pain at its worst in the last 24 hours .	0-10 VAS with 0 marked as no pain and 10 marked as pain as bad as you can imagine. DA=Prefer not to answer

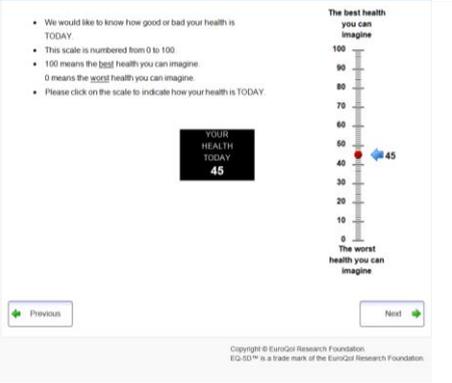
G2	120087	Please rate your pain by selecting the number that best describes your pain at its least in the last 24 hours .	0-10 VAS with 0 marked as no pain and 10 marked as pain as bad as you can imagine. DA=Prefer not to answer
G3	120088	Please rate your pain by selecting the number that best describes your pain on average .	0-10 VAS with 0 marked as no pain and 10 marked as pain as bad as you can imagine. DA=Prefer not to answer
G4	120089	Please rate your pain by selecting the number that tells how much pain you have right now .	0-10 VAS with 0 marked as no pain and 10 marked as pain as bad as you can imagine. DA=Prefer not to answer
G5	120090	In the last 24 hours , how much relief have pain treatments or medications provided? <i>Please select the percentage that most shows how much relief you have received.</i>	0-100 VAS in 10% increments with 0% marked as no relief and 100% marked as complete relief. NA = I am not taking any pain treatments or medications DA=Prefer not to answer
BLOCK G6	N/A	Select the number that describes how, during the past 24 hours , pain has interfered with your:	
G6a	120091	General Activity	0-10 VAS with 0 marked as does not interfere and 10 marked as completely interferes. DA=Prefer not to answer
G6b	120092	Mood	0-10 VAS with 0 marked as does not interfere and 10 marked as completely interferes. DA=Prefer not to answer

G6c	120093	Walking ability	0-10 VAS with 0 marked as does not interfere and 10 marked as completely interferes. DA=Prefer not to answer
G6d	120094	Normal Work (includes both work outside the home and housework)	0-10 VAS with 0 marked as does not interfere and 10 marked as completely interferes. DA=Prefer not to answer
G6e	120095	Relations with other people	0-10 VAS with 0 marked as does not interfere and 10 marked as completely interferes. DA=Prefer not to answer
G6f	120096	Sleep	0-10 VAS with 0 marked as does not interfere and 10 marked as completely interferes. DA=Prefer not to answer
G6g	120097	Enjoyment of life	0-10 VAS with 0 marked as does not interfere and 10 marked as completely interferes. DA=Prefer not to answer

Section H: Health outcomes

Q. No	Field ID	Stem	Responses
HINTRO	N/A	Please click the ONE box that best describes your health TODAY .	

H1	120098	MOBILITY	01=I have no problems in walking about 02=I have slight problems in walking about 03=I have moderate problems in walking about 04=I have severe problems in walking about 05=I am unable to walk about
H2	120099	SELF-CARE	01=I have no problems washing or dressing myself 02=I have slight problems washing or dressing myself 03=I have moderate problems washing or dressing myself 04=I have severe problems washing or dressing myself 05=I am unable to wash or dress myself
H3	120100	USUAL ACTIVITIES (e.g. work, study, housework, family or leisure activities)	01=I have no problems doing my usual activities 02=I have slight problems doing my usual activities 03=I have moderate problems doing my usual activities 04=I have severe problems doing my usual activities 05=I am unable to do my usual activities
H4	120101	PAIN/DISCOMFORT	01=I have no pain or discomfort 02=I have slight pain or discomfort 03=I have moderate pain or discomfort 04=I have severe pain or discomfort 05=I have extreme pain or discomfort
H5	120102	ANXIETY/DEPRESSION	01=I am not anxious or depressed 02=I am slightly anxious or depressed 03=I am moderately anxious or depressed 04=I am severely anxious or depressed 05=I am extremely anxious or depressed

H6	120103	<p>We would like to know how good or bad your health is TODAY.</p> <p>This scale is numbered from 0 to 100</p> <p>100 means the <u>best</u> health you can imagine.</p> <p>0 means the <u>worst</u> health you can imagine.</p> <p>Please click on the scale to indicate how your health is today.</p>	
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Section I: Recent feelings			
Q. No	Field ID	Stem	Responses
IINTRO	N/A	We next want to ask a few questions about your mood and feelings recently.	
BLOCKI1	N/A	Over the last 2 weeks , how often have you been bothered by any of the following problems?	
I1a	120104	Little interest or pleasure in doing things	01=Not at all 02=Several days 03=More than half the days 04=Nearly every day DA=Prefer not to answer
I1b	120105	Feeling down, depressed, or hopeless	01=Not at all 02=Several days 03=More than half the days 04=Nearly every day DA=Prefer not to answer
I1c	120106	Trouble falling or staying asleep, or sleeping too much	01=Not at all 02=Several days 03=More than half the days 04=Nearly every day DA=Prefer not to answer
I1d	120107	Feeling tired or having little energy	01=Not at all 02=Several days 03=More than half the days 04=Nearly every day DA=Prefer not to answer

I1e	120108	Poor appetite or overeating	01=Not at all 02=Several days 03=More than half the days 04=Nearly every day DA=Prefer not to answer
I1f	120109	Feeling bad about yourself - or that you are a failure or have let yourself or your family down	01=Not at all 02=Several days 03=More than half the days 04=Nearly every day DA=Prefer not to answer
I1g	120110	Trouble concentrating on things, such as reading the newspaper or watching television	01=Not at all 02=Several days 03=More than half the days 04=Nearly every day DA=Prefer not to answer
I1h	120111	Moving or speaking so slowly that other people could have noticed? Or the opposite — being so fidgety or restless that you have been moving around a lot more than usual	01=Not at all 02=Several days 03=More than half the days 04=Nearly every day DA=Prefer not to answer
I1i	120112	Thoughts that you would be better off dead or of hurting yourself in some way	01=Not at all 02=Several days 03=More than half the days 04=Nearly every day DA=Prefer not to answer
I2	120113	How difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?	01=Not difficult at all 02=Somewhat difficult 03=Very difficult 04=Extremely difficult DA=Prefer not to answer

Section J: Fatigue			
Q. No	Field ID	Stem	Responses
J1NTRO	N/A	Now we would like to know a little bit about your experience of fatigue.	
J1	120114	Do you have persistent or recurrent tiredness, weariness or fatigue that has lasted for at least 6 months ?	01=Yes 00=No DK=Do not know DA=Prefer not to answer
J1a	120115	Does this tiredness, weariness or fatigue go away when you rest?	01=Yes 00=No DK=Do not know DA=Prefer not to answer
J1b	120116	Is this tiredness, weariness or fatigue happening only because you have been exercising and/or working too much?	01=Yes 00=No DK=Do not know DA=Prefer not to answer

J1c	120117	Do you get tired after minimal physical or mental exertion?	01=Yes 00=No DK=Do not know DA=Prefer not to answer
J2	120118	Have you suffered from fatigue or exhaustion in the last week?	01=Yes 00=No DK=Do not know DA=Prefer not to answer
J3INTRO	N/A	The following questions allow us to rate the severity of your fatigue symptoms. Read each statement and select a number from 1 to 7, based on how accurately it reflects your condition during the past week and the extent to which you agree or disagree that the statement applies to you. (A low value (e.g. 1) indicates strong disagreement with the statement, whereas a high value (e.g. 7) indicates strong agreement.	
BLOCKJ3	N/A	During the past week, I have found that:	
J3a	120119	My motivation is lower when I am fatigued	01=Disagree 02= 03= 04= 05= 06= 07= Agree DA=Prefer not to answer
J3b	120120	Exercise brings on my fatigue	01=Disagree 02= 03= 04= 05= 06= 07= Agree DA=Prefer not to answer
J3c	120121	I am easily fatigued	01=Disagree 02= 03= 04= 05= 06= 07= Agree DA=Prefer not to answer
J3d	120122	Fatigue interferes with my physical functioning	01=Disagree 02= 03= 04= 05= 06= 07= Agree DA=Prefer not to answer

J3e	120123	Fatigue causes frequent problems for me	01=Disagree 02= 03= 04= 05= 06= 07= Agree DA=Prefer not to answer
J3f	120124	My fatigue prevents sustained physical functioning	01=Disagree 02= 03= 04= 05= 06= 07= Agree DA=Prefer not to answer
J3g	120125	Fatigue interferes with carrying out certain duties and responsibilities	01=Disagree 02= 03= 04= 05= 06= 07= Agree DA=Prefer not to answer
J3h	120126	Fatigue is among my three most disabling symptoms	01=Disagree 02= 03= 04= 05= 06= 07= Agree DA=Prefer not to answer
J3i	120127	Fatigue interferes with my work, family or social life	01=Disagree 02= 03= 04= 05= 06= 07= Agree DA=Prefer not to answer

Section K. CLOSE			
Q. No	Field ID	Stem	Responses
CLOSE	N/A	<p>Many thanks for taking the time to answer these questions. We really appreciate your contribution. Your answers will be used, along with other UK Biobank data, to better understand chronic pain.</p> <p>If you have concerns about any of the issues covered in the questionnaire, we suggest that you contact your GP.</p>	<p>Link to UKB participant website</p> <p>Link to UKB homepage</p>

