THE HEALTH ASSESSMENT QUESTIONNAIRE©
Stanford University School of Medicine
Division of Immunology & Rheumatology

INTRODUCTION

The Health Assessment Questionnaire (HAQ) was originally developed in 1978 by James F. Fries, MD, and colleagues at Stanford University. It was one of the first self-report functional status (disability) measures and has become the dominant instrument in many disease areas, including arthritis. It is widely used throughout the world and has become a mandated outcome measure for clinical trials in rheumatoid arthritis and some other diseases.

The initial paper, published in 1980 (see key journal references at end of this document), has been the most cited article in the rheumatology literature. A 1995 review discusses more than 200 publications on the reliability, validity, and its applicability in multiple settings and languages. The present number of citations (see website – to be completed in September, 2000) is in excess of 400.

Purpose

The HAQ was developed as a comprehensive measure of outcome in patients with a wide variety of rheumatic diseases, including rheumatoid arthritis, osteoarthritis, juvenile rheumatoid arthritis, lupus, scleroderma, ankylosing spondylitis, fibromyalgia, and psoriatic arthritis. It has also been applied to patients with HIV/AIDS and in studies of normal aging. It should be considered a generic rather than a disease-specific instrument. Its focus is on self-reported patient-oriented outcome measures, rather than process measures.

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GENERAL QUESTIONNAIRE DESCRIPTION

While the HAQ disability and pain scales are often referred to as “The HAQ”, long term outcome assessment best includes the Full Five-Dimension HAQ, which is a comprehensive outcome measure that assesses a hierarchy of patient outcomes in four domains: 1) disability, 2) discomfort and pain, 3) drug side effects (toxicity) and 4) dollar costs. Death, while obviously not a self-report outcome, is a requisite part of the conceptual model of patient outcome. In the United States, this is usually accomplished using the National Death Index. Alternatively, the first two domains, which comprise the HAQ Disability Index and Pain Scale can be used independently and frequently are. The drug toxicity sections and the economic impact sections undergo periodic changes; the disability, pain, and patient global areas have been maintained as constant since 1983.

The domain of disability is assessed by the eight categories of dressing, arising, eating, walking, hygiene, reach, grip, and common activities. Discomfort is determined by the presence of pain and its severity. Specific drug-associated side effects are classified according to their severity and whether the drug was

stopped. Dollar costs are divided into direct and indirect costs. Direct costs include hospitalization, surgery, nursing home care, physician and health worker visits, medications, laboratory tests, x-rays, aids and devices, non-traditional treatments, assistance with personal care, housework and such, transportation and any additional costs related to medical care. Utilization of these services is determined and converted into dollar costs. Indirect costs are those associated with productive days lost for the employed, housewives, students and retired persons, and changes in lifestyle and activities for the patient and family. Items address normal daily activities, employment status, marital status, and living arrangements.

The time frames differ among the various sections in the Full HAQ. Data on disability and discomfort and pain is based on the PAST WEEK; for medications, symptoms, side effects and costs, data is based on the PAST SIX MONTHS.

THE DISABILITY INDEX AND PAIN SCALE

The HAQ Disability Index and Pain Scale have been widely used for research purposes in both experimental and observational studies, as well as in clinical settings. The additional domains included in the full HAQ (e.g., drug side effects [toxicity], dollar costs, plus other ancillary items such as demographics and health care utilization) have primarily been used for research purposes. These have over the years been tailored for specific hypotheses or research questions by ARAMIS (Arthritis, Rheumatism, and Aging Medical Information System).

The Disability Index is sensitive to change and is a good predictor of future disability and costs. It has been shown to be reliable and valid in different languages and contexts. Test-retest correlations have ranged from 0.87 to 0.99. Correlations between interview and questionnaire format have ranged from 0.85 to 0.95. Validity has been demonstrated in literally hundreds of studies. There is consensus that the HAQ Disability Index possesses face and content validity. Correlations between questionnaire or interview scores and task performance have ranged from 0.71 to 0.95 demonstrating criterion validity. The construct/convergent validity, predictive validity and sensitivity to change have also been established in numerous observational studies and clinical trials. The HAQ Disability Index has also demonstrated a high level of convergent validity based on the pattern of correlations with other clinical and laboratory measures.

QUESTIONNAIRE ADMINISTRATION

The HAQ is usually self-administered, but can also be given face-to-face in a clinical setting or in a telephone interview format by trained outcome assessors, and has been validated in these settings. The questionnaire is typically mailed to patients every six months, and they are asked to complete it without additional instructions. Follow-up phone calls are sometimes needed to obtain missing data or to clarify ambiguous responses in the high-quality research data applications. The HAQ Disability Index and Pain Scale can be completed in approximately five minutes. The full HAQ takes 20 to 30 minutes to complete.

The Disability Index

The eight categories assessed by the Disability Index are 1) dressing and grooming, 2) arising, 3) eating, 4) walking, 5) hygiene, 6) reach, 7) grip, and 8) common daily activities. For each of these categories, patients report the amount of difficulty they have in performing two or three specific activities. Patients usually find the HAQ Disability Index entirely self-explanatory, and clarifications are seldom required.

Ratings such as SOME, MUCH, or USUAL are deliberately not defined for the patients; patients are instructed to respond idiomatically, using their own frame of reference. For example, if a patient asks what "SOME" means, an appropriate response would be "Whatever you think 'SOME' means to you".

The time frame for the disability questions is the PAST WEEK. The Disability Index is designed to assess patients' USUAL abilities using their usual equipment. Some patients have questioned whether their response should reflect a particularly good or bad time, which is out of the time frame requested, because they feel that their response may be missing those times when their functional ability changes. However, by repeating the HAQ at specific and regular time intervals, patterns of function can be examined. Inquiring about these activities only when patients are feeling particularly good or bad would result in inaccurate and biased data. The score is not modified if they have difficulties sometimes or require help only occasionally. Some the following discussion is taken from materials used by ARAMIS outcome assessors.

Addressing some scenarios which occasionally arise:

- If an item does not apply to an individual, e.g., they don't shampoo their hair, take tub baths, or reach for a heavy object above their heads, then they should leave the item(s) blank since the purpose is to obtain data about what they can do.

- If a patient uses adapted or modified aids or devices (e.g., clothing, faucets, cars), then they should answer the questions based on their usual equipment. If they have no difficulty using the adapted equipment, then they would mark the "no difficulty" column. The adapted equipment (aids and devices) will be taken into account in the assistance variables (see below).

- If an individual can open their own door but not for others, then they should respond in consideration of their own requirements.

- Relative to inquiries about distance in responding to the item about walking, patients should be advised to make their own decisions.

Scoring Conventions for the Disability Index

There are four possible responses for the Disability Index questions:

Without ANY difficulty	= 0	With MUCH difficulty	= 2
With SOME difficulty	= 1	UNABLE to do	= 3

- The highest score reported by the patient for any component question of the eight categories determines the score for that category.

- If a component question is left blank or the response is too ambiguous to assign a score, then the score for that category is determined by the remaining completed question(s).

- If all component questions are blank or if more than one answer is given, then follow up with the respondent is required.

- If the respondent's mark is between the response columns, then move it to the closest one. If it's directly between the two, move it to the higher one.

Each of the disability items on the HAQ has a companion aids/devices variable that is used to record what type(s) of assistance, if any, the participant uses for his/her usual activities. These variables (see below) are coded as follows:

0 = No assistance is needed.
1 = A special device is used by the patient in his/her usual activities.
2 = The patient usually needs help from another person.
3 = The patient usually needs BOTH a special device AND help from another person.
Devices that are associated with each category:

Note that this assignment of devices to particular disability categories assumes that the devices are used only for the purpose for which they are designed. For example, if an individual indicates that he/she uses a cane, it is presumed that they use the cane as an aid in walking. However, it is possible for that patient to use that cane as an aid in performing other activities. For example, the patient may check off the cane listed at the bottom of the page 1 (or write "cane" under the "other" slot) and then write a little note in the margin stating that the cane is also used on a regular basis as an aid in helping them rise out of a chair and to rise off of the toilet. In such a case, the variables should be coded as "1" to reflect the patient's use of a cane in these three areas of daily functioning. If unsure whether the patient is using one of the devices specified above for the purpose for which it is designed, call the patient to inquire about specific uses.

Devices written in the "Other" sections or notes written next to any component questions are considered if they would be used for any of the stated categories. Permanent adaptations of the person's environment (e.g., changing faucets in the bathroom or kitchen, using Velcro closures on clothing) should also be counted as aids and devices.

Computed Variables:

The scoring variables and scoring rules permit the computation of two disability indices, the Standard Disability Index and the Alternative Disability Index. For either of these, a disability index cannot be computed if the patient does not have scores for at least 6 categories.

1) The Standard Disability Index. "What is the Disability level of this person?"

This question results in a new set of category scores that are computed by adjusting the score for each category, if necessary, based on the patient's use of an aid or device or assistance for that category. If either devices and/or help from another person are checked for a category, the score is set to "2", unless the score is already "3" (i.e., scores of "0" or "1' are increased to "2"). For example, if the highest score for the dressing category is "1", and the patient says they use a device for dressing, the computed category score would be "2". The sum of the computed categories scores is then calculated and divided by the number of categories answered. This gives a score in the 0 to 3 range.

2) The Alternative Disability Index. "What is the disability level of this patient when using aids and devices to compensate for disability?"

The aids and devices variables are not used to calculate the alternative disability index; it is calculated by adding the scores for each of the categories and dividing by the number of categories answered. This gives a score in the 0 to 3 range.

The Pain Scale

The pain scale is designed to obtain data relative to the presence or absence of arthritis-related pain and its severity. The reference time frame is THE PAST WEEK. The objective is to obtain information from patients on how their pain has USUALLY been over the past week, even though pain may be reported to vary over the course of a day or from day to day.

Scoring Conventions for the Pain Scale:

Pain is measured on a doubly-anchored visual analog scale (a horizontal line where each end represents opposite ends of a continuum) that is standardized to 15 centimeters in length; the length is convenient for the page and for the patient. It is labeled with "no pain" (with a score of 0) at one end and "very severe pain" (with a score of 100 at the other. Patients are instructed to place a vertical mark on the line to indicate the severity of their pain. A score from 0 to 3 is obtained based on the location of the respondent's mark. In some applications, the 0-100 scale is used, which is perfectly permissible.

To obtain the individual's score, with a metric ruler, measure the distance from the left side (at base zero) of the line up to the mark and multiply by 0.2. This converts the number of centimeters into the appropriate score and will yield a value from 0 to 3.

Some potential scenarios:

- If the patient writes in a number on the pain scale, or writes a number in addition to making a mark, you need only take the number, converting it to the corresponding score. In this care, do not measure the mark. For example, if the patient writes "50" on the line, this should be coded as 1.5.

- If an individual records a percentage, multiply the percentage by 3. Pain severity coding translations follow below: If a patient puts more than one mark, the midpoint is used.

- If a patient makes a horizontal line below the pain scale, instead of a vertical one, the midpoint of that line is taken. If the line starts at the beginning of the scale, measure to the end of the line not the middle.

PAIN SEVERITY CODING TRANSLATIONS

Measurement (Cm) = Score	Measurement (Cm) = Score
0 = 0	7.8 - 8.2 = 1.6
0.1 - 0 .7 = 0.1	8.3 - 8.7 = 1.7
0.8 - 1.2 = 0.2	8.8 - 9.2 = 1.8
1.3 - 1.7 = 0.3	9.3 - 9.7 = 1.9
1.8 - 2.2 = 0.4	9.8 - 10.2 = 2.0
2.3 - 2.7 = 0.5	10.3 - 10.7 = 2.1
2.8 - 3.2 = 0.6	10.8 - 11.2 = 2.2
3.3 - 3.7 = 0.7	11.3 - 11.7 = 2.3

3.8 - 4.2 = 0 .8	11.8 - 12.2 = 2.4
4.3 - 4.7 = 0 .9	12.3 - 12.7 = 2.5
4.8 - 5.2 = 1.0	12.8 - 13.2 = 2.6
5.3 - 5.7 = 1.1	13.3 - 13.7 = 2.7
5.8 - 6.2 = 1.2	13.8 - 14.2 = 2.8
6.3 - 6.7 = 1.3	14.3 - 14.7 = 2.9
6.8 - 7.2 = 1.4	14.8 - 15.0 = 3.0

Drug Side Effects [Toxicity]

A prevalence of symptom frequency is obtained by inquiring about symptoms, conditions, and side effects that have occurred in the past six months. Data on side effects associated with specific drugs includes severity of side effects, whether or not the drug was stopped, and importance of the side effects to the patient. These items about patient-attributed drug side effects provide the six-month incidence figures. Scoring and coding: For additional information, please contact us.

Dollar Cost And Other Items - For additional information, please contact us.

KEY JOURNAL REFERENCES

Ramey DR, Fries JF, Singh G. in B. Spilker *Quality of Life and Pharmacoleconomics in Clinical Trials, 2nd ed.,* The Health Assessment Questionnaire 1995 -- Status and Review. Philadelphia: Lippincott-Raven Pub., 1996, p 227-237.

Fries JF, Spitz P, Kraines G, Holman H. Measurement of Patient Outcome in Arthritis. Arthritis and Rheumatism, 1980, 23:137-145.

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Name_____ **Date**_____

In this section we are interested in learning how your illness affects your ability to function in daily life. Please feel free to add any comments on the back of this page.

Please check the response which best describes your usual abilities OVER THE PAST WEEK:

	Without ANY difficulty 0	With SOME difficulty 1	With MUCH difficulty 2	UNABLE to do 3
DRESSING & GROOMING				
Are you able to:				
-Dress yourself, including tying shoelaces and doing buttons?	☐	☐	☐	☐
-Shampoo your hair?	☐	☐	☐	☐
ARISING				
Are you able to:				
-Stand up from a straight chair?	☐	☐	☐	☐
-Get in and out of bed?	☐	☐	☐	☐
EATING				
Are you able to:				
-Cut your meat?	☐	☐	☐	☐
-Lift a full cup or glass to your mo	☐	☐	☐	☐
-Open a new milk carton?	☐	☐	☐	☐
WALKING				
Are you able to:				
-Walk outdoors on flat ground?	☐	☐	☐	☐
-Climb up five steps?	☐	☐	☐	☐

Please check any AIDS OR DEVICES that you usually use for any of these activities:

- ☐ Cane
- ☐ Walker
- ☐ Crutches
- ☐ Wheelchair
- ☐ Devices used for dressing (button hook, zipp long-handled shoe horn, etc.)
- ☐ Built up or special utensils
- ☐ Special or built up chair
- ☐ Other (Specify:_____)

Please check any categories for which you usually need HELP FROM ANOTHER PERSON:

- ☐ Dressing and Grooming
- ☐ Eating
- ☐ Arising
- ☐ Walking

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Please check the response which best describes your usual abilities **OVER THE PAST WEEK:**

	Without ANY difficulty [0]	With SOME difficulty [1]	With MUCH difficulty [2]	UNABLE to do [3]
HYGIENE				
Are you able to:				
-Wash and dry your body?	☐	☐	☐	☐
-Take a tub bath?	☐	☐	☐	☐
-Get on and off the toilet?	☐	☐	☐	☐
REACH				
Are you able to:				
-Reach and get down a 5-pound object (such as a bag of sugar) from just above your head?	☐	☐	☐	☐
-Bend down to pick up clothing from the floor?	☐	☐	☐	☐
GRIP				
Are you able to:				
-Open car doors?	☐	☐	☐	☐
-Open jars which have been previously opened?	☐	☐	☐	☐
-Turn faucets on and off?	☐	☐	☐	☐
ACTIVITIES				
Are you able to:				
-Run errands and shop?	☐	☐	☐	☐
-Get in and out of a car?	☐	☐	☐	☐
-Do chores such as vacuuming or yardwork	☐	☐	☐	☐

Please check any AIDS OR DEVICES that you usually use for any of these activities:

- ☐ Raised toilet seat
- ☐ Bathtub seat
- ☐ Jar opener (for jars previously opened)
- ☐ Bathtub bar
- ☐ Long-handled appliances for reach
- ☐ Long-handled appliances in bathroom
- ☐ Other (Specify:_____)

Please check any categories for which you usually need HELP FROM ANOTHER PERSON:

- ☐ Hygiene
- ☐ Gripping and opening things
- ☐ Reach
- ☐ Errands and chores

We are also interested in learning whether or not you are affected by pain because of your illness.

How much pain have you had because of your illness IN THE PAST WEEK:

PLACE A VERTICAL (|) MARK ON THE LINE TO INDICATE THE SEVERITY OF THE PAIN

NO PAIN — SEVERE PAIN

0 ———————————————————————————— 100

1. Have you participated in any clinical trials in the **PAST 6 MONTHS?**

   ☐ No

   ☐ Yes - trial of an arthritis medicine Name of medicine _____

   ☐ Yes - trial of another type of medicine Name of medicine _____

   ☐ Don't know the name of the medicine

2. In general, would you say your current health is:

   ☐ Excellent ☐ Very Good ☐ Good ☐ Fair ☐ Poor

SYMPTOMS

1. Please check any items which apply to your health during the **PAST 6 MONTHS.**

If *none*, check here: ☐

HEAD, EYES, EARS, NOSE, MOUTH AND THROAT:

☐ Blurred vision
☐ Ringing in ears
☐ Hearing difficulties
☐ Mouth sores
☐ Loss, change in taste
☐ Headache
☐ Dizziness
☐ Fever

CHEST, LUNGS AND HEART

☐ Chest pain
☐ Shortness of breath
☐ Wheezing (asthma)

GASTROINTESTINAL TRACT:

☐ Loss of appetite
☐ Nausea
☐ Heartburn
☐ Indigestion or belching
☐ Pain or discomfort in upper abdomen(stomach)

MUSCULOSKELETAL:

☐ Joint pain
☐ Joint swelling
☐ Low back pain
☐ Muscle pain
☐ Neck pain
☐ Weakness of muscles
☐ If you are stiff in the morning ___(hr/min) how long does the stiffness last?

NEUROLOGIC AND PSYCHOLOGIC

☐ Depression
☐ Insomnia
☐ Nervousness
☐ Tiredness (Fatigue)
☐ Trouble thinking or remembering

SKIN:

☐ Easy bruising
☐ Hives or welts
☐ Itching
☐ Rash

☐ Liver problems, kind_____
☐ Pain or cramps in lower abdomen (colon)
☐ Diarrhea (frequent, explosive watery bowel movements, severe)
☐ Constipation
☐ Black or tarry stools (not from iron)
☐ Vomiting

FEMALES ONLY - ☐ Are you pregnant?

OTHER
☐ Any others? (specify)____

MEDICATIONS

1. In the **PAST 6 MONTHS** have you taken any medications? ☐ Yes ☐ No

Please complete **ALL THE BLANKS ON THE LINE** for any medications that you have taken. If a medication is taken **occasionally or as needed**, please estimate the **number of days per month** you have taken it. **IF RECORDING ASPIRIN**, please note regular or enteric coated.

For the last column "OVERALL SATISFACTION", considering both effectiveness and side effects, please rate your satisfaction with each drug as a treatment for your arthritis on a scale of 0 - 10 where "0" means you were Totally dissatisfied and "10" means you were Extremely satisfied.

ARTHRITIS MEDICATIONS TAKEN BY MOUTH (both prescription and over-the-counter) ***INCLUDE OCCASIONAL or AS NEEDED MEDICATIONS***	Number of pills per day	Mg. Per Pill	**Still taking** PLEASE CHECK (√)	Number of **months** out of last 6 months on drug	If **Started or Stopped** in Last 6 Months, List month and year **Started / Stopped**		**Overall Satisfaction** as a Treatment for your arthritis [0 - Totally dissatisfied to 10 - Extremely satisfied]

If you are taking Prednisone, how are you taking it? (e.g. every other day/once per day/twice per day/other) _____

MEDICATIONS TAKEN BY INJECTION OR IN VEIN (IV) (e.g., gold salt inject-ions, steroid injections, Enbrel, Remicade)	Total Number of Treatments in the Last 6 Months	**Still Taking** PLEASE CHECK (√)	Number of **Months** out of Last 6 Months on Drug	If **Started or Stopped** in Last 6 Months, List Month and Year **Started Stopped**		**Overall Satisfaction** as a Treatment For Your Arthritis[0 -Totally dissatisfied to 10 - Extremely satisfied]

OTHER MEDICATIONS Please list **all** other medications (both prescription and over-the-counter) you have taken in the **PAST 6 MONTHS** for any other medical condition. ***INCLUDE OCCASIONAL or AS NEEDED MEDICATIONS***	Number of Pills Per Day	Mg. Per Pill	**Still Taking** PLEASE CHECK (√)	Number of **Months** out of Last 6 Months on Drug	If **Started or Stopped** in Last 6 Months, List Month and Year **Started**	**Stopped**
For additional medications, please use the comment section at the end of the questionnaire						

2. We are interested in finding out about your experience with **pain medications taken on an occasional basis**. "Occasional use" means you take at least a couple of tablets in 6 months, but you do not take the medication daily for periods of more than a month. We would like to find out about occasional use of **aspirin** (e.g., Bayer, Ecotrin, Bufferin), **acetaminophen** (e.g., Tylenol), and **ibuprofen** (e.g., Advil, Motrin) for headaches and minor aches and pains.

ASPIRIN (e.g., Bayer, Ecotrin, Bufferin)	**1990 - 1998**	**Past 6 months**
Have you taken **aspirin** on an occasional basis during this time period?	☐ Yes ☐ N	☐ Yes ☐ No
If yes, how many days in a typical month do you take it?	_____	_____
On the days when you are taking it, on average, how many tablets do you take?	_____	_____

When you take **aspirin** occasionally, why do you take it?

☐ Headaches ☐ Muscle aches and pains ☐ Menstrual cramps

☐ Other, specify _____

When you take **aspirin** occasionally, do you have any side effects? ☐ Yes ☐ No

If yes, what types of side effects have you had? _____

ACETAMINOPHEN (e.g., Tylenol)	**1990 - 1998**	**Past 6 months**
Have you taken **acetaminophen** on an occasional basis during this time period?	☐ Yes ☐ N	☐ Yes ☐ No
If yes, how many days in a typical month do you take it?	_____	_____
On the days when you are taking it, on average, how many tablets do you take?	_____	_____

When you take **acetaminophen** occasionally, why do you take it?

☐ Headaches ☐ Muscle aches and pains ☐ Menstrual cramps

☐ Other, specify _____

When you take **acetaminophen** occasionally, do you have any side effects? ☐ Yes ☐ No

If yes, what types of side effects have you had? _____

IBUPROFEN (e.g., Advil, Motrin)	**1990 - 1998**	**Past 6 months**
Have you taken **ibuprofen** on an occasional basis during this time period?	☐ Yes ☐ No	☐ Yes ☐ No
If yes, how many days in a typical month do you take it?	_____	_____
On the days when you are taking it, on average, how many tablets do you take?	_____	_____

When you take **ibuprofen** occasionally, why do you take it?

☐ Headaches ☐ Muscle aches and pains ☐ Menstrual cramps

☐ Other, specify _____

When you take **ibuprofen** occasionally, do you have any side effects? ☐ Yes ☐ No

If yes, what types of side effects have you had? _____

3.Did you stop taking any **ARTHRITIS MEDICINES** during the **PAST 6 MONTHS**, regardless of reason?
☐ Yes ☐ No

If Yes, please tell us below what medicines you stopped, why you stopped, and tell us about the medicine you are now taking instead. (These medications should also be listed on the Medication page)

Name of Drug You Stopped Please Print	If Stopped, Why? (X all that apply)	Did You Start Another Medicine to Replace it? **Yes** **No**	If Yes, Which Medicine? Please Print
1.	Didn't work Side Effects Other	☐ ☐	
2.	Didn't work Side Effects Other	☐ ☐	
3.	Didn't work Side Effects Other	☐ ☐	
4.	Didn't work Side Effects Other	☐ ☐	

Although you have already listed your medications, please answer the following items which request additional information about certain kinds of medications.

4. In the **PAST 6 MONTHS**, have you taken any "health food" type supplements? (Examples: glucosamine, chondroitin, vitamins, herbs) ☐ Yes ☐ No
   If Yes, please tell us about them in the table below:

Supplement	Number of Tablets per Day	Mg. (or Units) per Tablet	Number of **Months** Taken in Last 6 Months	If Still Taking Please Check (√)

5. a. Have you had any of the following injections in your joints in the **PAST 6 MONTHS**? We are interested in injections of a new material, similar to natural joint fluid, that acts as a lubricant and shock absorber for the joints.

☐ None ☐ Synvisc (Hylan G-F20) ☐ Hyalgan (Sodium Hyaluronate) ☐ Don't Know

b. Which joints were injected with the above drug?

☐ None
☐ Both Knees
☐ One Knee
☐ Other[5], Specify _____

c. What is the total number of injections you have had, counting both knees? _____

6. Have you EVER used **ACETAMINOPHEN** (Tylenol) for your arthritis? ☐ Yes ☐ No

a. If Yes, please indicate on a scale of 0 to 10, how satisfied you were with acetaminophen as a treatment for your arthritis.

"0" means you were totally dissatisfied and "10" means you were extremely satisfied.

|----------|
0 10
Totally dissatisfied Extremely satisfied

b. We would like you to compare your experience with acetaminophen (Tylenol) to your experience with anti-inflammatory drugs (such as ibuprofen, Naprosyn, Relafen, Lodine, Celebrex, Daypro, etc.). Thinking only about the effectiveness of acetaminophen, was it:

|----------|
0 10
Much less effective Much more effective

c. Now, taking into consideration both **effectiveness** AND any **side effects** that you experienced with either type of drug, please compare your OVERALL SATISFACTION with acetaminophen to that of anti-inflammatory drugs you have taken. Was the acetaminophen:

|----------|
0 10
Much less satisfactory Much more satisfactory

7. In the **PAST 6 MONTHS**, have you taken **Coumadin (Warfarin)** ? ☐ Yes ☐ No

8. Have you taken any of the following medications in the **PAST 6 MONTHS?** ☐ Yes ☐ No

If Yes, indicate number of months for each medication you have taken.

Medication	**Number** of Months Taken Out of **Past 6 Months**
Vitamin D supplements	
Calcium	

Fluoride	
Estrogens (female hormone replacement therapy)	
Osteoporosis drugs, specify:_____	

DRUG SIDE EFFECTS

Have you had any side effect(s) from your medication in the **PAST 6 MONTHS** ☐ Yes ☐ No

COMPLETE THE REST OF THIS SECTION ONLY IF YOU HAVE SAID YES.

DIRECTIONS:

1. Write in the name of the drug causing the side effect(s).
2. Indicate whether you stopped the drug.
3. List side effect(s) for each drug. You may want to refer back to page 3. Please list any abnormal laboratory findings such as: low white blood count, protein in urine, low platelets, kidney problems, anemia,liver problems.
4. Check the severity of each side effect.
5. **Please indicate how important the side effect was to you by making a mark on the scale from 0 to 10, where 0 is Not At All and 10 is Very Much.**
6. If you need more room, please use the back of this questionnaire.

A.(1) DRUG NAME_____

(2) Did you STOP the drug because of a side effect? ☐ Yes ☐ No

(3) LIST SIDE EFFECT _____

(4) SEVERITY of side effect ☐ mild ☐ moderate ☐ severe

(5) How important was this side effect to you?

0 10
|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
Not at All Very Much

B.(1) DRUG NAME_____

(2) Did you STOP the drug because of a side effect? ☐ Yes ☐ No

(3) LIST SIDE EFFECT _____

(4) SEVERITY of side effect ☐ mild ☐ moderate ☐ severe

(5) How important was this side effect to you?

0 10
|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
Not at All Very Much

C.(1) DRUG NAME_____

(2) Did you STOP the drug because of a side effect? ☐ Yes ☐ No

(3) LIST SIDE EFFECT _____

(4) SEVERITY of side effect ☐ mild ☐ moderate ☐ severe

(5) How <u>important</u> was this side effect to you?

0 10

|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|

Not at All Very Much

D. (1) DRUG NAME_____

(2) Did you STOP the drug because of a side effect? ☐ Yes ☐ No

(3) LIST SIDE EFFECT _____

(4) SEVERITY of side effect ☐ mild ☐ moderate ☐ severe

(5) How important was this side effect to you?

0 10
|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
Not at All Very Much

E. (1) DRUG NAME_____

(2) Did you STOP the drug because of a side effect? ☐ Yes ☐ No

(3) LIST SIDE EFFECT _____

(4) SEVERITY of side effect ☐ mild ☐ moderate ☐ severe

(5) How important was this side effect to you?

0 10
|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
Not at All Very Much

F. (1) DRUG NAME_____

(2) Did you STOP the drug because of a side effect? ☐ Yes ☐ No

(3) LIST SIDE EFFECT _____

(4) SEVERITY of side effect ☐ mild ☐ moderate ☐ severe

(5) How important was this side effect to you?

0 10
|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
Not at All Very Much

G. (1) DRUG NAME_____

(2) Did you STOP the drug because of a side effect? ☐ Yes ☐ No

(3) LIST SIDE EFFECT _____

(4) SEVERITY of side effect ☐ mild ☐ moderate ☐ severe

(5) How <u>important</u> was this side effect to you?

0 10

|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|

Not at All Very Much

MEDICAL HISTORY

We are interested in your use of health care providers in the **PAST 6 MONTHS.** Please include **ALL** visits.

1. In the **PAST 6 MONTHS** did you stay in the hospital overnight for any reason? ☐ Yes ☐ No

   -If Yes, please describe each hospitalization visit:

Reason for Hospitalization	Hospital (City, State)	Admission Date (Month, Year)	Number of Nights in Hospital	Was this a Medical or Surgical Stay?

2. Were any of these hospitalizations related to a side effect from any of your medications? ☐ Yes ☐ No

   -If Yes, which hospitalization(s) and which medication(s):_____
   _____

   _____

3. In the **PAST 6 MONTHS** have you had any outpatient surgery or procedures? ☐ Yes ☐ No

   -If Yes, please list:

Surgery/Procedure	Doctor's Name	Location and Address (Hospital, Doctor's Office)	Date (Month, Year)	Was this a Medical or Surgical Visit?

4. In the **PAST 6 MONTHS** have you been to a hospital Emergency Room? ☐ Yes ☐ No
   Do not include "after hour clinics" or "urgent care centers"

   -If Yes**,** how many visits? _____

5. In the **PAST 6 MONTHS** were you a patient in a nursing or convalescent home or live-in rehabilitation center?

☐ Yes ☐ No

-If Yes, for how many days? _____ Days

6. Have you seen any doctors or any other health workers in the **PAST 6 MONTHS?** ☐ Yes ☐ No
DO NOT INCLUDE ANY WHILE A PATIENT IN THE HOSPITAL.

-If Yes, please complete

	NUMBER of visits In Last 6 Months
Rheumatologist	_____
Internist	_____
Family physician (general practitioner)	_____
Nurse practitioner/physician assistant	_____
Gastroenterologist	_____
Urologist/proctologist	_____
General or orthopedic surgeon	_____
Podiatrist (foot doctor)	_____
Chiropractor	_____
Physical or occupational therapist	_____

Other doctors (dermatologist or others)
Please specify:

_____

_____

Other Health Workers (Social worker or others)

_____ _____

_____ _____

Diagnostic Procedures

7. Have you had any diagnostic tests or treatments in the **PAST 6 MONTHS?** ☐ Yes ☐ No

DO NOT INCLUDE ANY THAT WERE DONE WHILE YOU WERE A PATIENT IN THE HOSPITAL

-If Yes, please complete the following.

	NUMBER of tests	**Part of body**
X-Rays (chest, stomach or bowels, joints, etc.)	_____	_____
Nuclear Medicine Scans (Bone scan) or Magnetic Resonance Imaging (MRI)	_____	_____
CT Scan	_____	_____
Blood tests (Number of times blood was drawn)	_____	_____
Urine tests	_____	_____

Endoscopy (Gastroscopy) ..... _____ _____

Colonoscopy ..... _____ _____

Other tests, please specify _____

MEDICAL CONDITIONS

1. Have you been diagnosed with any **NEW** medical problems in the **PAST 6 MONTHS?**
   ☐ Yes ☐ No

   If yes, please complete the following:

High blood pressure	☐ Yes	☐ No	Lung problem	☐ Yes	☐ No
Other Heart Conditions	☐ Yes	☐ No	Cataract	☐ Yes	☐ No
Stroke	☐ Yes	☐ No	Ulcers/stomach problems	☐ Yes	☐ No
Depression	☐ Yes	☐ No	Asthma	☐ Yes	☐ No
Mental Illness	☐ Yes	☐ No	Liver Problems	☐ Yes	☐ No
Diabetes	☐ Yes	☐ No	Thyroid or Endocrine problems		
Cancer	☐ Yes	☐ No	Parkinson's)	☐ Yes	☐ No
Alcohol or drug problems	☐ Yes	☐ No			

2. We are interested in finding out if you have ever had certain kinds of **heart and circulation problems**, since arthritis may affect the risk of these conditions. Your answers will help us determine whether some types of problems occur more or less frequently in patients with arthritis.

   Have you **ever** had any of the following

problems?	☐ Yes	☐ No	Year: _____
Heart attack / myocardial infarction (MI)	☐ Yes	☐ No	Year: _____
Angina (chest pain due to heart disease)	☐ Yes	☐ No	Year: _____
Coronary Artery Bypass Surgery	☐ Yes	☐ No	Year: _____
(CABG)	☐ Yes	☐ No	Year: _____
Balloon Angioplasty	☐ Yes	☐ No	Year: _____
Heart Catheterization	☐ Yes	☐ No	Year: _____
Congestive Heart Failure (CHF)	☐ Yes	☐ No	Year: _____
CHF currently being treated			
Heart Valve Problem			

3. Have you had any **INFECTIONS** in the **PAST 6 MONTHS**? DO NOT INCLUDE COLDS OR FLU
   ☐ Yes ☐ No

   PLEASE INCLUDE EMERGENCY ROOM AND OUT-PATIENT VISITS
   -If Yes, please answer the following:

	Number of Infections	Number of emergency room or out-patient visits	Number of times admitted to the hospital
☐ Septicemia (Sepsis, blood stream infection)	_____	_____	_____
☐ Pneumonia	_____	_____	_____
☐ Shingles (Herpes zoster)	_____	_____	_____
☐ Bone/Joint Infection (osteomyelitis, septic joint, infected artificial joint)	_____	_____	_____
☐ Skin infections (infected skin ulcer, Cellulitis, infected nodules)	_____	_____	_____
☐ Urinary tract infection/Kidney infection	_____	_____	_____
☐ Bladder infection	_____	_____	_____
☐ Other, specify	_____	_____	_____

4. How much trouble have you had with your **STOMACH** (i.e., nausea, heartburn, bloating, pain, etc.) in the past week?

Place a mark on the line below:

|----------|

0 — No stomach problems

100 — Severe stomach problems

If you had any stomach problems, were they related to a specific drug or drugs?

If yes, what drug(s)? _____

5 a. **IN THE PAST 6 MONTHS**, have you been told BY A PHYSICIAN that you had an ulcer ? (a stomach or duodenal ulcer) ☐ Yes ☐ No

b. Which of the following did he/she use to diagnose your ulcer? (Mark all that apply)

☐ Endoscopy ☐ X-ray ☐ Talking to you about your symptoms

Date of diagnosis _____

6. In the PAST 6 MONTHS, have you had a **BROKEN BONE (FRACTURE),** fractures of the spine or vertebrae, broken back, collapsed vertebrae, or been told you had a “fracture on x-ray”?

☐ Yes ☐ No

If yes, please complete:

What bone was broken?	How did fracture occur?	What month did it occur?
_____	_____	_____
_____	_____	_____

7. In the PAST 6 MONTHS**,** have you been told that you had **OSTEOPOROSIS**, thinning of the bones, or lack of calcium in your bones?

   ☐ Yes ☐ No

8. In the **PAST 6 MONTHS** have you been diagnosed with a kidney or renal problem (do not include urinary tract or kidney infections)?

   ☐ Yes ☐ No

   -If Yes, please answer questions a - c

   a. What kind of kidney or renal problem did/do you have? _____
   b. Were you ever hospitalized for this problem? ☐ Yes ☐ No
   c. Did you have kidney dialysis in the PAST 6 MONTHS? ☐ Yes ☐ No

9. In the **PAST 6 MONTHS** have you been told that you have any kind of **TUMOR OR CANCER**?
☐ Yes ☐ No

-If yes, was it: ☐ Benign ☐ malignant

What kind? (for example: leukemia, lymphoma, lung) _____

10. Have you **EVER** been diagnosed with any kind of cancer? ☐ Yes ☐ No

-If Yes, What kind? _____ What year was it diagnosed? _____

What kind? _____ What year was it diagnosed? _____

HEALTH STATUS

1. Considering all the ways that your arthritis affects you, rate how you are doing on the following scale by placing a mark on the line.

|----------|

0	100
very well	very poor

2. How satisfied are you with your HEALTH NOW?

☐ Very satisfied [1]
☐ Somewhat satisfied[2]
☐ Neither satisfied or dissatisfied[3]
☐ Somewhat dissatisfied[4]
☐ Very dissatisfied[5]

3. How tall are you? _____ Feet _____ Inches

4. How much do you weigh? _____ Pounds

HEALTH BEHAVIORS

1. Have you ever smoked cigarettes?

☐ No

☐ Yes, If yes, what year did you start smoking? _____

On average, how many packs per day have you smoked? _____ packs

Do you smoke now?

☐ No, If No, what year did you stop smoking? _____ ☐ Yes

2. Do you regularly drink alcoholic beverages? ☐ Yes ☐ No

If Yes, how many drinks do you usually have in a typical day?

_____ Beer (1 drink = 12 oz. can or bottle)

_____ Wine (1 drink = 6 oz. glass)

_____ Hard liquor, cocktails, or cordial (1 drink = 1 1/2 oz. liquor)

3. During a **typical week**, how much **total** time (for the **entire week**) do you spend on each of the following?

If *none*, check here: ☐

MINUTES PER WEEK

Stretching or strengthening exercise _____

Walk for exercise _____

Swimming or aquatic exercise _____

Bicycling (including stationary, exercise bikes) _____

Other aerobic exercise equipment
(stair climber or skiing machines) _____

Other aerobic exercise, _____
Specify_____

BACKGROUND

1. Do you have access to the World Wide Web? At home? ☐ Yes ☐ No
At work? ☐ Yes ☐ No

If yes, during the past six months, about how often did you logon to the Internet / Web?

☐ Daily or almost daily ☐ 2-3 times per week ☐ 3-4 times per month ☐ Occasionally

Do you have e-mail? ☐ Yes ☐ No

If yes, during the past six months, about how often did you check your e-mail?

☐ Daily or almost daily ☐ 2-3 times per week ☐ 3-4 times per month ☐ Occasionally

If given a choice, how would you prefer to fill out your questionnaire?

☐ By US mail ☐ On a web site

2. What type(s) of **HEALTH INSURANCE** do you have?
(Please check all that apply)

☐ **None**

☐ **Medicaid / Medi-Cal** (State Assistance)

☐ **Medicare Part A** (Medicare insurance for hospital care)

☐ **Medicare Part B** (Medicare insurance for physician visits and other non-hospital care)

☐ **Medicare/HMO** (Insurance for people with Medicare who select to join a health maintenance organization, HMO)

Name of HMO: _____

☐ **Medigap Insurance** (Additional insurance for people covered by Medicare. Medigap policies generally pay the Medicare deductibles and co-insurance.

☐ **Medicare Disability Insurance**

☐ **Other public assistance Insurance**

☐ **Traditional Insurance** (Insurance where you may see any physician you choose. Many traditional insurance policies require you to pay coinsurance (a percentage of the charges for each visit) and/or a deductible)

Name: _____

☐ **Health Maintenance Organization (HMO)** (Insurance where you must see a primary care physician to receive care. In most cases, the primary care physician must authorize visits to specialists or other providers. Primary care physicians are chosen from a list of physicians affiliated with the organization. In most cases, HMOs charge a small copayment for each visit, but have no deductible.)

Name: _____

☐ **Preferred Provider Organization (PPO)** (Insurance where you may see any physician you choose, but you pay a different amount depending on whether or not the physician is affiliated with the organization and whether or not you are referred by your primary care physician)

Name: _____

☐ **Champus / VA**

☐ **Federal Employees Health Benefit Program**

EMPLOYMENT STATUS

1. Which one of the following categories best describes you at this time?

   ☐ Working for pay: Occupation_____
   Job duties_____
   Hours/week_____
   Personal yearly earnings - nearest thousand (optional)_____
   (NOT TOTAL HOUSEHOLD INCOME) I

   ☐ Retired

   ☐ Homemaker

   ☐ Student

   ☐ Disabled

   ☐ Looking for work

   ☐ On sick leave: Occupation_____

   ☐ On vacation: Occupation_____

   ☐ Other (Specify):_____

2. In the **PAST 6 MONTHS** have there been days when you have had to **CUT DOWN** or **LIMIT** your usual non-employment activities (including housework, school) **BECAUSE OF YOUR HEALTH**?
   ☐ Yes ☐ No

   If yes, how many days? _____

3. IN THE **PAST 6 MONTHS** have there been days when you have been **COMPLETELY UNABLE** to carry out your usual non-employment activities **BECAUSE OF YOUR HEALTH**?
   ☐ Yes ☐ No

   If yes, how many days? _____

   IF YOU ARE <u>NOT</u> EMPLOYED, PLEASE SKIP TO THE LAST PAGE

   IF YOU ARE EMPLOYED, PLEASE ANSWER QUESTIONS 4 - 8

4. IN THE **PAST 6 MONTHS** have you missed any days of work **BECAUSE OF YOUR HEALTH**?

   ☐ Yes ☐ No

   If yes, how many days? _____

5. In the **PAST 6 MONTHS** have there been any days when you were not able to do your regular work tasks **BECAUSE OF YOUR HEALTH**?

☐ Yes ☐ No

If Yes, how many days? _____

6. IN THE **PAST 6 MONTHS** have you stopped or started working **BECAUSE OF YOUR HEALTH**?

☐ Yes ☐ No

If Yes, please check (√):

☐ Stopped working: When? _____ Was it due to your arthritis? ☐ Yes ☐ No

☐ Started working: When? _____ Was it due to your arthritis? ☐ Yes ☐ No

7. IN THE **PAST 6 MONTHS** have you changed your **HOURS** of work **BECAUSE OF YOUR HEALTH**?

☐ Yes ☐ No

If Yes, please check (√):

☐ Increased hours Was it due to your arthritis? ☐ Yes ☐ No

☐ Decreased hours Was it due to your arthritis? ☐ Yes ☐ No

8. In the **PAST 6 MONTHS** have you taken <u>unpaid</u> time off from work to visit your doctor, a psychologist, or other health professional?

☐ Yes ☐ No

-If yes, how many hours have you taken off? _____ hours/past 6 months

COMMENTS:

_____

_____

_____

_____

_____

_____

_____

_____

This page asks you for permission to allow us to review medical records pertaining to your involvement in this research program. This information will be kept strictly confidential and used for research purposes only.

RELEASE OF MEDICAL INFORMATION

I give permission for the release of information pertaining to my medical/financial care to the ARAMIS Studies.

PLEASE USE INK

Name: _____
(PLEASE PRINT)

Address: _____

_____

_____
Postal/Zip Code

Date of Birth: _____

Please sign below:

Signature: _____

Date: _____