

Rheumatoid Arthritis

**SYT Paper
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1. CASE STUDY #1: K.M.

Initial Intake July 25, 2005

K.M. is a 29-year-old female. She is 5 feet 5 inches tall and weighs 135 pounds. She has a medium build. She is single and lives alone but has a close relationship with her family. She is the older of two girls. She volunteers at various children's programs weekly. This includes being a mentor to a young girl for the last few years, teaching a pre teen religious study group and taking part in a reading program for underprivileged children. These programs along with working full time keep her very busy.

She works as a media relation's consultant for a hospital. Her work requires her to be sedentary for long periods of time, and she often sits for 10 hours with very few physical breaks. She says her workstation has not been set up ergonomically.

K.M. has a low water intake and said that in the past she actually had an irregular heartbeat that her physician thought might be due to dehydration. She sometimes has only 1 glass of water during the workday but drinks 3 glasses when she gets home from work because she is so thirsty. She sleeps about 6-8 hours on work nights but on the weekend feels she could sleep 16 hours with no problem. However, after she has these long sleeps she does not feel well. I asked if she was depressed and whether that might be causing the need to sleep so much. She thought her need from sleep resulted from the long hours at work all week catching up with her. She has been to a nutritionist who suggested that she go off sugar, red meat, fried food, caffeine and nightshades and increase fruits and vegetables. She is trying to do this and has been exchanging some fish for the red meat and has eliminated fried foods and caffeine. She likes potatoes and tomatoes but is trying to limit her intake as they are nightshades and are contraindicated for arthritis.

At age 6 she contracted rheumatic fever, which caused her joints to swell and made her unable to walk for months. When she was 8 she had another episode that doctors believed was an allergic reaction to the medication that she had been prescribed to treat her frequent episodes of strep throat. The joint swelling and body stiffness continued, leading doctors to conclude that she had rheumatoid arthritis. She was seen at the Boston hospitals until in her teens, where they did physical therapy intermittently. She was active in sports until age 16. From that age, she did not have much physical activity until she was 22, at which point she began to take yoga. She took yoga classes for about 2 years and discontinued because the movements became too difficult for her. She felt she was not able to get up and down well enough to continue in the class.

K.M. has refused to take any medications to treat her rheumatoid arthritis, except for an occasional non-steroidal anti-inflammatory to relieve joint stiffness. She takes this about once every three weeks. She suffers from acid reflux as well, which she believes stems from her gallbladder removal, and she takes medication as a treatment. She also suffered from diarrhea since the surgery but is now taking a fiber supplement with good effect. She describes her abdomen as feeling "inflamed" since the surgery a year ago. She feels that she has more anxiety, and feels spacey and scattered since the gallbladder operation.

Her arthritis symptoms (stiffness, fatigue and pain) increase when she overexerts herself physically. For example, she says she sometimes cleans her house for several hours at a time, and the next day she feels pain in her joints and will not be able to move. The outcome is exhaustion, and she sometimes stays in bed for 14 hours, which then causes her to feel lethargic and like she cannot move. She also notices that her symptoms are worse in the spring and fall. On a scale of 1-10 her pain can be an 8 and the stiffness a 6. When I first met her in the summer she said she did not feel pain but only stiffness occasionally. In summer she says she is very uncomfortable with the heat and always feels "sweaty"

She feels her most serious problem is her feet, which ache most of the time and are callused on the bottom due to callous build up. She also has flat feet. She cannot get up and down from the floor and cannot bend down to pick anything up. She also feels she breaths very shallowly and is a reverse breather. Her goals include:

- Being able to bend or squat
- feeling less stiffness in her feet

- improving her posture
- improving the range of motion in her neck
- improving her breathing to be able to breathe more deeply.

1B Bodyreading

Initial readings show an overall stiffness but no inflamed joints and not heat in joints. She admits to not really “feeling her body.” Her left shoulder is higher than her right shoulder as is the scapula. Arms are in flexion. Hands are in flexion the left more than the right. Back is flat. SI joint assessment shows left side does not move and the right moves slightly upward. No scoliosis seen. Her ankles and knees appear swollen but not fluid filled. Feet are flat. Joints are not red or warm to the touch.

Physical Assessment: K.M.

Range of Motion

	August ROM: Rt/Lt	January ROM: Rt/Lt
<i>SUPINE</i>		
Ankle		
Dorsiflexion	10/8	18/13
Inversion	13/12	45/22
Knee		
Flexion	109/106	92/85
Hip		
Flexion-bent knee	84/68	91/70
Flexion-straight knee	65/53	76/73
External rotation	42/25	45/30
Internal rotation	20/15	22/17
Shoulder		
Flexion	133/108	144/132
External rotation	31/20	45/30
Internal rotation	20/34	38/58
Elbow		
Extension	145/147	152/150
Wrist		
Ulnar deviation	5/5	9/12
Radial deviation	5/13	15/19
<i>SIDE-LYING</i>		
Hip		
Abduction	39/30	43/40
<i>SEATED</i>		
Shoulder		
Horizontal adduction	105/94	113/115

Neck		
Flexion	54	55
Extension	32	50
Lateral flexion	15/10	42/29
Rotation	25/8	30/26
PRONE		
Knee		
Flexion	85/90	92/85
Shoulder		
Extension	10/18	15/22

Muscle Testing

	August MT: Rt/Lt	January MT: Rt/Lt
SUPINE		
Hip		
Flexors	2/2	4/3.5
Shoulder		
Internal rotators	4/3	4/4
PRONE		
Knee		
Flexion	4/4	4.5/4.5
Extension	3/3	4/4
Hip		
External rotators	4/3	4.5/4.5
Shoulder		
Middle trapezius	3	4

1. C. Summary of Initial Findings

Initial findings show limited ROM in most joints. We chose to work on what she felt she wanted to change .

Strengthen	Stretch
SCM/Upper Trapezius/ rotation	SCM/Upper Trapezius/ rotation
Latissimus dorsi, teres major	Pectoralis major /bicep/ anterior deltoid
Anterior deltoid/biceps-flexors	Posterior deltoid/Latissimus/
Hip flexors	Hip flexors for extension
	External hip rotators
	Left internal rotators
Tibialis anterior/posterior	Tibialis anterior/posterior
Peronius longus /brevis	Peronius longus/brevis

1.D. Recommendations

KM had many physical issues that could be addressed. She had said that she did not feel her body in the initial intake I thought it more important to go with the things that she did feel were a problem. The fact that she wanted to be able to get to the floor was a big goal but certainly the most important one to her. Also the stiffness in the feet, ROM in neck, improving her breathing were things she was willing to work on. I wanted to get her moving in any way that she was willing. Since she hadn't done anything physical in years I felt a modified joint freeing series would benefit her by getting her to feel her body and get her moving. It was also very important to get her to feel her body.

We discussed increasing her water intake and having her workstation set up ergonomically. We discussed that the most important thing she could do for herself right away was getting up at least once an hour at work and stretching and/or walking around for a few minutes. Since she works on a computer all day I suggested that she set the time on her computer to go off every hour to remind her. She was not sure that she had the time to get up each hour. We discussed her drinking more water at home and at work. She has water cooler at work but cannot change the bottle herself so limits herself to 1 or 2 tiny cups. She will consider bringing in her own bottle to keep at her desk.

Since she was not a morning person but had to be at work early and stayed late we split the joint freeing throughout the day. She did the feet while lying in bed and then sitting at her desk, the knees were done sitting in a chair as was cat/cow, arms, shoulder and neck movements. Doing the movements with awareness was stressed. I thought the breathing may confuse her the first few weeks but she thought she would try it with the breathing. She initially overdid the series and felt sore so we dropped down to about 4-5 reps per day.

By the second week we were adding breathing (lying down hands on belly and just feeling belly rise and fall) and she had a plan to drink more water. Having her Brita water pitcher filled each day and drinking more in the AM before she left for work enabled her to hydrate more even though it was hard to drink more at work. She did say she felt better with the added water-more alert and less tired.

She was anxious to get back to doing some standing postures that she had liked to do when taking yoga. I encouraged her to do the ones she liked and then added some variations. She added warrior 1 and 2 with shortened stance for stability. Mountain to be done while consciously lifting arches.

She continued to work on what she was given. She wanted more standing poses as she was still not getting to the floor but wanted to "do yoga" We added tree, which was always her favorite. I suggested leaning against the wall but she doesn't like that and preferred doing it free standing. Since her arms do not lift over her head she was instructed to just stretch them as high as she could lifting through the spine or keep hands a prayer in front of chest or just down on belly if that was more comfortable.

Triangle and standing squat were added for leg and ankle strength- again the question of what to do with the arms. I felt she needed to expand the arms even though they didn't lift very far. She asked how she "looked" and I said that I felt she was doing it fine for her body at that moment. We added locust and cobra (no hands) and bridge small movements up and down with breath all while lying on the bed. She said she was able to breath abdominally but it took a lot of concentration.

She did not do all of the movements everyday but did try to do a longer practice on the weekends when she had more time. This meant doing the joint freeing series 3-5 X a week and adding standing postures as much as she was able.

By the eighth week we had met or emailed about 4 times. I had encouraged her to take a Mindful Based Stress Reduction course that was offered at her work. She had meditated in the past and I had planned on addressing it with her. This was a good opportunity for her as her job was becoming busier and she did not have to travel to the class. She enjoyed it and was able to do the yoga modifications she had learned from me during the yoga part of the MBSR course. She said she was able to get down onto the floor one time during the class after much practice. Unfortunately she was not able to replicate this for me when we tried it weeks later. She did a lot of meditation practice, which she said made her feel centered. She also felt that she thinks much "clearer". In fact she says that in meetings at work she can almost tell what her boss is going to say. We discussed the koshas and how it seemed in her deep meditations were leading her into Vijananamaya kosha. She was interested in this as she said she very good at going into deep meditation while in college and felt it helped her with her studies and with staying centered.

By November she was feeling very achy and not practicing as much as she felt she should have. Since it was fall and her worst time of the year it was very hard for her to get moving. She was also having a lot of stress at work as she was given almost impossible tasks to do in a very short time with her very limited staff. She is extremely conscientious in her work. This is what she will put first before her body requirements. We spoke many times about this and she feels there is no way to get more help or take more breaks from her desk. I have explained my concerns about her limited ability to move. The arm ROM needed to reach or comb her own hair is important to maintain. The ankle and foot problems that were a complaint when I first met her require her to keep the circulation going along with strengthening for stability. I was pretty blunt in what the outcome of RA can be as I had grown up with a Mom with a very severe form of the disease.

On our next meeting she came to my house. This had taken awhile and I hadn't seen her in about 3 weeks. The other meetings had mostly been in her office after work. I was determined to get her to the floor so she could do some movements there. She did get to the floor but had to use the chair for support while getting down. She did this much better than I had thought she would. Once there she did side to side rocking, bridge, some leg extensions. She was able to do downward on elbows with her back aligned beautifully. This was very exciting. On the belly she did locust one leg at a time and then both legs. She tried cobra but her elbows could not bend enough so did sphinx. We ended with a relaxation. She said it felt very good to be on the floor and said she would continue to do that at home. I had continued to invite her to take my gentle yoga class but she feels she would not be comfortable in a class. I have assured her that I am willing to work with her beyond the writing of this paper and would like her to make time to do that.

E. Summary of results of recommendations January 2, 2006

Assessments were done. Most ROM had improved, some significantly. She also had an increase in almost all muscle testing. Her body felt stronger to me and she was able to move without pain. We were able to do the final assessments in a few hours as the initial assessments took three meetings because she became uncomfortable or fatigued. KM had not felt well the last few weeks and was hesitant to be measured after she had not been doing much movement the last few weeks. She had been sick for a few weeks in December with a stomach upset and had not done much at that time either. She says that it is hard for her to follow a routine, as she gets bored. She is doing the joint freeing that we started in the summer and the standing warriors, triangle, mountain, side half moon, and standing squats. She says she does them about 4-5 times a week. Does not do the full routine each time but varies different parts. She does do the feet and ankles each day. She says that she has gotten on the floor at home for some floor moves and that it makes her feel better. She was pleasantly surprised with the measurements. I hope this will encourage her to continue.

She tries to stay away from junk food and knows that it can effect how she feels. For example I felt her legs and feet were more edematous than before and she said she had had potato chips and they had made her swell. She also said that she felt worse when she eats chocolate -her joints ache more.

She had been working on omitting meat and junk food when we began working together. She also omits

milk products and spicy foods do to her digestive problems. We talked about the arthritis diet again and an anti pitta diet. She has the book "Perfect Health" by Deepak Chopra which goes into detail about each dosha diet and she will try to follow that. She already naturally is drawn to the anti pitta diet by avoiding cheeses, salt and red meat and eating lots of salads and vegetables. She likes cool drinks but doesn't use ice, which can decrease the digestive fire needed in the stomach.

She still has not had her workstation set up ergonomically. It costs a lot for the company she works for to do the assessment and make the changes. I don't think she wants to file a complaint about her workstation. She has been able to get up and move around much more at work. She has assistants that she has to oversee so this provides her with a lot of walking time. She continues to meditate about 15 minutes most days.

We talked a lot about the progression of RA. She says it helps to hear what the outcome will be if she doesn't do any movement of her body. Also spoke about medication and she said she feels she is too young to go on meds and will avoid it as long as possible. I thought she would be better in a group activity for inspiration but she said she doesn't like group activities. She did like yoga in the group but then she felt it took to long getting up and down and people in the class would end up trying to help her which made her uncomfortable. I offered to have her come to my gentle class where she can be accommodated and she said she might come.

I feel that KM has made very good progress. She made improvements in her ankle inversion/ eversion. I don't know if her feet were more swollen in the summer when the initial measurements were done and that is why there was such a drastic change or it was because she does her ankle movements each day. She made improvement in her shoulder flexion, neck flexibility and her hip flexion. This is all helpful in allowing her to reach, look from side to side and squat down more than she was able to before we started. She seems to have much more insight into her body and how there is a cause and effect to diet and exercise. She is back to meditating on a fairly regular basis and she has a renewed interest in yoga.

Case Study #2: A.T.

Initial Intake July 30, 2005

A.T. is a 72-year-old woman with severe rheumatoid arthritis. She has been a widow for 8 years and has 3 daughters and many siblings and friends for support. She was diagnosed at age 18 but had suffered for a few years before that with joint stiffness and pain. She had had many untreated sore throats as a child and says that after hemorrhaging after a tonsillectomy at age 18 her joint pain became much worse. She worked at jewelry assembly and could not unclench her hands at the end of the workday. She went on to be married and had 4 children one of whom was born with spinal bifida and died at 9 months. After each pregnancy her RA became more crippling. From 1970 to 1991 she had 6 different joint replacement operations: metacarpals, 3 knee replacements (1 on the right and 2 on the left), hip and elbow.

The hand surgery was experimental at the time and did not work. The elbow and hip replacement reduced the pain. The knees were done because her knees were becoming so knock kneed that she was beginning to lose her balance. The knee replacements did not improve her ROM very much. The most flexion she ever attained was about 70 degrees.

AT has a very complicated health history. Besides the RA she has diverticulosis, a condition of out-pouching of the intestines that can cause inflammation and potentially an ulcer and "hole" or perforation in the intestines. She has suffered a colon perforation that led to a temporary colostomy and a duodenal perforation that led to a good amount of her stomach being removed. She suffers from frequent diarrhea because of her digestive problems. She also has cardiac problems including hypertension and has had a heart attack. She had a pace maker placed to help with her abnormal heartbeat. She has lung nodules from her RA, which causes her to be more at risk for pneumonia. She also has osteoporosis. This could be due to her disease, aging or the frequent use of steroids for her arthritis.

She states that her joint pain is about a 3 or 4 now. She feels worse upon awakening but with a hot

shower stiffness and pain can decrease. She does have days when pain flares up but it only lasts a few days unlike years ago when severe pain (an 8 or 9) would last for months.

Her biggest concern is her balance. She has fallen in the past and wants to prevent that from happening again. She wants to maintain the strength that she does have. She feels she does not take deep enough breaths and would like to "breathe right". She does her exercises everyday. These are a combination of the things she has learned over the years from various physical therapy programs she took after each operation. She knows she has to do them to stay independent and to relieve her stiffness. She is very independent and is out driving everyday. She knows that she has to balance her activity with rest so she does nap when she needs to.

2B Bodyreading

Initial body reading is a very thin, frail woman with multiple arthritic indications. She is five feet 3 inches tall and weighs 93 pounds. Her shoulders are rotated forward slightly. Her fingers have an ulna deviation, and her hand bones have a radial deviation. This gives her the typical zigzag pattern of hands common to people with severe RA. Elbows not in full extension. Knees enlarged and knock-kneed. When she stands with knees together her feet are about 6 inches apart. Feet and toes show severe crippling from the arthritis. She has nodules--which are a hard bony like protrusions--on her fingers elbows and bottoms of her feet. These can be painful and bleed when she bumps them against something. Despite all of her medical problems she stands straight in good alignment for her condition.

Her wrists are locked and stay in about 10 degrees flexion. Fingers are malformed with joint destruction and nodules but she is able to grasp to some extent.

Physical Assessment

Range of Motion

Began Range of Motion assessments. Then patient fell one week later. Unable to finish assessment.

	August ROM: Rt/Lt	January ROM: Rt/Lt
<i>SUPINE</i>		
Ankle		
Dorsiflexion	10/15	15/16
Eversion	15/10	22/22
Inversion	26/22	35/30
Hip		
Flexion-bent knee	90/90	113/110
Shoulder		
Flexion	75/80	101/103
External rotation	37/60	60/60
Internal rotation	34/55	50/78
<i>SEATED</i>		
Neck		
Lateral flexion	40/40	45/35
Rotation	55/45	60/45

Muscle Testing

Muscle testing was very limited because of her severe disability and frailty. Ankles were strong on dorsiflexion and plantar flexion but she is unable to be tested on eversion and inversion. Her quads are about a 3.5 on both sides. Her knee flexion is 4 on the right and 3.5 on left. Any other muscle testing caused pain. On retest was the same except quads were 4.

C. Summary of initial findings

Strengthen	Stretch
Tibialis anterior	Gastrocnemius
Peroneus longus /brevis	Peroneus longus/brevis
Hamstrings/ knee	Quadriceps
Anterior /posterior deltoids	Anterior/Posterior deltoid
SCM	SCM

D. Recommendations

Because of the extent of her illness I felt it was important to concentrate on freeing up all of her joints as much as possible using comfortable stretches. I also wanted to eventually move to strengthening the muscles of the legs and feet for stability and increasing her ability to raise her arms. If no improvement could be made she would still need a program to prevent any further deterioration. She did do some exercise each day so that was beneficial. It is easier to keep someone moving than to get someone to start moving. She was doing most exercises sitting in her recliner chair that is automated to lift her to standing when a button is pushed. She was very disciplined in her exercise each day so it wasn't too hard to have her add some joint freeing movements to what she was already doing.

What she was already doing

FootCircles
Plantar and dorsi flexion
Leg lifts while sitting keeping leg extended
Swinging arms overhead while seated in chair
Marching in place while holding on to a chair
Rotating neck side to side
Stretching her fingers and hands (opening and closing)

What was added

Eversion and inversion JFS #2 for stretch and strength
Added knee flex with leg extension in seated position JFS #4 to gain added flexion in knee by strengthening the hamstrings/ stretching the quads.
Standing to flex and extend shoulders. To stretch and strengthen deltoids, biceps, triceps. JFS #15
Also added JFS #12 extending and flexing arms to increase both movements.
JFS 13 and 14 to open the shoulders though these movements were very limited.
Flexing and extension of neck. Though flexion was greater than normal on exam.
Rotation of neck #21 to continue.
Modified cat/cow to be done while sitting on edge of straight chair to open chest and back as she did no movements like this at all. Rounded back to be avoided for osteoporosis.
Wrist movements were demonstrated but AT could not move in deviations but could make minimal circles.

For #6 she sat on the edge of the chair using breath to arch forward and back. I cautioned her to not extend beyond neutral in the rounding because of her osteoporosis. (Rounding the back is contraindicated for osteoporosis.) She did not think she would get much motion from the wrist movements of #9-11 but was encouraged to try. Also didn't really like #12 because her elbows do not flex to her shoulders but I encouraged her to try it. She does flexing of the shoulders but because of her limited shoulder and elbow

flexion she does not get her hands above her head. She was shown #15 to do while standing as she hadn't been extending the arms behind her and was just flexing. She will do the seated twist when in a straight back chair but demonstrated a modified version for her osteoporosis. She was shown how to do all of these using the inhale and exhale. Since she is a reverse breather and was having a hard time getting this she was also instructed to practice breathing with her hand on her belly so she could bring the inhale into the belly on the in breath and feel the contraction of the belly on the out breath

About 2 weeks after we began, A.T. took a very bad fall that left her with a hairline fracture of the left hip and a broken right clavicle. She was hospitalized then went to inpatient rehabilitation for 7 weeks. She became very debilitated.

It took A.T. month She was much more tired than usual. She did physical therapy and occupational therapy while in rehab. They had not seen anyone with such a bad case of arthritis before. She worked on her joint freeing series while she was there as much as she was able. Once she was home she added standing squat against the wall and lunge (warrior II) standing holding on to a railing or kitchen counter. She is concerned with strengthening her thighs and it feels good for her to do standing postures.

E. Summary of results of recommendations December 26, 2005

My work with AT began in July when I started the measurements and added some of the joint freeing series to her existing movements that she was doing. For example, her usual routine was to swing her arms towards over her head to stretch. I had her add the shoulder movements # 13, 14 and 15, she also had rotated her neck side to side so neck movements 19, 20 were added. She already did ankle dorsa and plantar flexion so ankle aversion and inversion were added. AT was having a very hard time using the breath at the same time in the beginning so I had her just practice the breathing while lying down just to get the feel of abdominal breathing. She is a reverse breather and also has lung nodules. She was using her accessory muscles and was not paying attention to the movements while trying to inhale and exhale. This was something that was very challenging for her to work with.

Two weeks after we began AT fell and broke her clavicle and they thought possibly the left hip (it wasn't) She was hospitalized and then went to a nursing home for 6 weeks. She was only allowed out of bed to the chair for about two weeks. Her left arm was in a sling. This set her back tremendously. But she still continued to work her right arm and leg and do the neck joint freeing series. She is used to doing some exercise each day so even while confined to the bed and chair she kept working. She did try to practice the breathing but because of her severe pain in the clavicle her breath sounds diminished. She ended up using an inspiration spirometer (a tube with a ball inside that rises when the person inhales) to increase her lung capacity. We worked together at least every other day while she was in the nursing home and weekly when she went home.

When she went home she was still very weak. She began her joint freeing series of the neck, and feet. She added the leg extension and flexion while seated in her recliner. By November she was able to do standing squats, and warrior 2 holding on to a railing. She also does standing "Locust" one leg extending back while facing the railing she adds some back arching to extend the spine. At this time she spends about an hour a day on her "exercises". These consist of the modified joint freeing series as mentioned above and the standing postures. We are continuing to work on the breathing issue. She is able to do abdominal breathing if she concentrates and now realizes when she is reverse breathing. She said that she feels stronger than she has in a long time.

Because of ATs digestive problems especially the limited stomach and colon that she has left she continues to have diarrhea. She has been trying to gain weight for the last two years since her partial stomach removal. She is hesitant to change her diet and try new things. She sticks to bland food. She also eats out about 4 times a week with family and friends so she does not want to change her eating habits. She eats a well balanced diet with very little snacking but in small portions She had been to a nutritionist about 15 years ago that put her on a no wheat, dairy, or sugar diet along with supplements. She was pain free but her weight went down to 83 pounds and she has always been fearful of losing weight so went of f the diet.

AT feels her arthritis is still active but she has learned to live with her disease as she has had it for 55 years. She has found a balance with her activity and resting though she never stops exercising even on the worst days. She naps when she feels tired and enjoys her time with her family. If she is asked for advice about the disease she says the most important thing is to get out of bed and move. She knows many people in her arthritis group who would stay in bed for days because of their pain and they ended up in wheel chairs. She credits having to take care of her family with keeping her as mobile as she is.

AT has done very well since her fall in the summer. She has added the various JFS and the standing postures to strengthen. She will continue to do these. She has been eating very bland food because of her gastric problems. She is back to driving but has to rest much more frequently than before her fall.

2a. Name and Description of Condition

"Rheumatoid arthritis is a chronic autoimmune disease, mainly characterized by inflammation of the lining, or synovium, of the joints. It can lead to long-term joint damage, resulting in chronic pain, loss of function and disability.

Approximately 2.1 million people in the United States, or 1 percent of the population, have rheumatoid arthritis (RA). It can affect anyone, including children, but 70 percent of people with RA are women. Onset usually occurs between 30 and 50 years of age.

Rheumatoid arthritis (RA) progresses in three stages. The first stage is the swelling of the synovial lining, causing pain, warmth, stiffness, redness and swelling around the joint. Second is the rapid division and growth of cells, or pannus, which causes the synovium to thicken. In the third stage, the inflamed cells release enzymes that may digest bone and cartilage, often causing the involved joint to lose its shape and alignment, more pain, and loss of movement.

RA is a systemic disease, which means it can affect other organs in the body. Early diagnosis and treatment of RA is critical if you want to continue living a productive lifestyle. Studies have shown that early aggressive treatment of RA can limit joint damage, which in turn limits loss of movement, decreased ability to work, and potential surgery" (Arthritis Foundation "Disease Center:Rheumatoid Arthritis").

"It has several special features that make it different from other kinds of arthritis. For example, rheumatoid arthritis generally occurs in a symmetrical pattern, meaning that if one knee or hand is involved, the other one also is. The disease often affects the wrist joints and the finger joints closest to the hand. It can also affect other parts of the body besides the joints. In addition, people with rheumatoid arthritis may have fatigue, occasional fevers, and a general sense of not feeling well.

Scientists still do not know exactly what causes the immune system to turn against itself in rheumatoid arthritis, but research over the last few years has begun to piece together the factors involved.

Genetic (inherited) factors: Scientists have discovered that certain genes known to play a role in the immune system are associated with a tendency to develop rheumatoid arthritis. Some people with rheumatoid arthritis do not have these particular genes; still others have these genes but never develop the disease. These somewhat contradictory data suggest that a person's genetic makeup plays an important role in determining if he or she will develop rheumatoid arthritis, but it is not the only factor. What is clear, however, is that more than one gene is involved in determining whether a person develops rheumatoid arthritis and how severe the disease will become.

Environmental factors: Many scientists think that something must occur to trigger the disease process in people whose genetic makeup makes them susceptible to rheumatoid arthritis. A viral or bacterial infection appears likely, but the exact agent is not yet known" (National Institute of Health " Handout on Health:Rheumatoid Arthritis")

"Women get rheumatoid arthritis two to three times more often than men and their RA typically goes into remission when they get pregnant. Women develop RA more often than expected in the year after pregnancy and symptoms can increase after a baby is born. These facts lead researchers to believe that

gender might play a role in the development and progression of RA. Many are trying to understand the effects female hormones might have in the development of RA" (Arthritis Foundation "Disease Center :Rheumatoid Arthritis")

2b. Gross and Subtle Body: Common Symptoms

Features of Rheumatoid Arthritis (National Institutes of Health website)

- Tender, warm, swollen joints
- Symmetrical pattern of affected joints
- Joint inflammation often affecting the wrist and finger joints closest to the hand
- Joint inflammation sometimes affecting other joints, including the neck, shoulders, elbows, hips, knees, ankles, and feet
- Fatigue, occasional fevers, a general sense of not feeling well
- Pain and stiffness lasting for more than 30 minutes in the morning or after a long rest
- Symptoms that last for many years
- Variability of symptoms among people with the disease

Other common body readings include: (Harrison's Online)

- Flexion of the elbow due to synovitis of the elbow joint
- Synovitis of the wrist. This is nearly a uniform feature of RA.
- Synovial hypertrophy of the knee joint. Chronic effusion and lax ligaments of the knee joint.
- Limited neck movement near the cervical spine.
- Weakness and atrophy of skeletal muscle, especially in the muscles approximating affected joints.

"The typical case of rheumatoid arthritis begins insidiously, with the slow development of signs and symptoms over weeks to months. Often the patient first notices stiffness (see below) in one or more joints, usually accompanied by pain on movement and by tenderness in the joint. The number of joints involved is highly variable, but almost always the process is eventually polyarticular, involving five or more joints. (Johns Hopkins Arthritis)

The joints involved most often are the proximal interphalangeal (PIP) and metacarpophalangeal (MCP) joints of the hands, the wrists (particularly at the ulnar-styloid articulation), shoulders, elbows, knees, ankles, and metatarsophalangeal (MTP) joints. The distal interphalangeal (DIP) joints are generally spared. The spine is usually not affected until late in the disease.

Morning stiffness, persisting more than one hour but often lasting several hours, may be a feature of any inflammatory arthritis but is especially characteristic of rheumatoid arthritis. Its duration is a useful gauge of the inflammatory activity of the disease. Similar stiffness can occur after long periods of sitting or inactivity.

Nonspecific systemic symptoms primarily fatigue, malaise, and depression, may commonly precede other symptoms of the disease by weeks to months. Patients complain of severe fatigue 4 to 6 hours after wakening. Fever occasionally occurs and is almost always low grade (37° to 38°C; 99° to 100°F).

Symmetric joint swelling, although not invariable, is characteristic of rheumatoid arthritis. Careful palpation of the joints can help to distinguish the swelling of joint inflammation from the bony enlargement seen in osteoarthritis. Pain on passive motion is the most sensitive test for joint inflammation. Occasionally inflamed joints will feel warm to the touch. Inflammation, structural deformity, or both may limit the range of motion of the joint. Permanent deformity is an unwanted result of the inflammatory process.

The most common neurologic manifestation of rheumatoid arthritis is a mild, primarily sensory peripheral neuropathy, usually more marked in the lower extremities. Entrapment neuropathies (e.g., carpal tunnel syndrome and tarsal tunnel syndrome) sometimes occur in patients with rheumatoid arthritis because of compression of a peripheral nerve by inflamed edematous tissue (Johns Hopkins Arthritis)

"Small lumps, called rheumatoid nodules, may form under the skin at pressure points, and can occur at the elbows, hands, feet and Achilles tendons. Rheumatoid nodules may also occur elsewhere, including the back of the scalp, over the knee or even in the lungs. These nodules can range in size — from as small as a pea to as large as a walnut. Usually these lumps aren't painful.

In contrast to osteoarthritis, which affects only the bones and joints, rheumatoid arthritis can cause inflammation of tear glands, salivary glands, the linings of the heart and lungs, the lungs themselves and, in rare cases, the blood vessels.

Although rheumatoid arthritis is often a chronic disease, it tends to vary in severity and may even come and go. Periods of increased disease activity — called flare-ups or flares — alternate with periods of relative remission, during which the swelling, pain, difficulty sleeping and weakness fade or disappear. Swelling or deformity may limit the flexibility of the joints" (Mayo Clinic, "Rheumatoid Arthritis").

Subtle body symptoms

The subtle body symptoms may include decreased prana flow to the limbs as the joints become enlarged and stuck with increased fluid. The lungs can be affected due to the arthritis in the lungs or just the change in the posture. There may be tensing in the mind and body, as the person is unable to do all the things they "should" do that can lead to anger and guilt. There maybe depression and sadness shown in the facial features and body posture. The may also not be "feeling" there body at all as a result of being unable to deal with a devastating disease.

2c. Related Challenges (Lifestyle, Diet, Limitations on Activity)

"People with rheumatoid arthritis need a good balance between rest and exercise, with more rest when the disease is active and more exercise when it is not. Rest helps to reduce active joint inflammation and pain and to fight fatigue. The length of time for rest will vary from person to person, but in general, shorter rest breaks every now and then are more helpful than long times spent in bed.

Exercise is important for maintaining healthy and strong muscles, preserving joint mobility, and maintaining flexibility. Exercise can also help people sleep well, reduce pain, maintain a positive attitude, and lose weight. Exercise programs should take into account the person's physical abilities, limitations, and changing needs" (National Institutes of Health "Handout on Health: Rheumatoid Arthritis")

Exercises must be tailored to the individual's physical abilities. Many people with RA are not able to get onto the floor to do exercises, and so would need to modify exercises to involve a chair or lying on the bed. RA patients tend to have a higher tolerance for pain, which can cause them to overexert themselves.

Some people with RA may have a high tolerance for pain as they are used to a constant level of pain. They may be very "stoic" about pain or even have a difficult time discerning their pain level. Because their disease is unpredictable they tend to overdo it on days they feel well because they don't know when they will be in a flare-up and not be able to move. This often causes them to ignore how their body feels and they end up exhausted. It is understandable but they must be encouraged to slow down and rest even when they are feeling energetic.

Exercise or asana are an important part of health maintenance. According to Measurement of Joint Motion, getting out of a chair requires 112 degrees of hip flexions; reaching objects on a high shelf requires 148 degrees of shoulder flexion; and combing one's hair requires a large degree of shoulder abduction and lateral shoulder rotation (Norkin, 2003). One needs a minimum of 60-70 degrees of cervical rotation to look over the shoulder, as when driving. These ranges of motion are often limited in persons with rheumatoid arthritis, and so daily activities such as these become very difficult.

Clients should avoid activities that require repetitive motions, heavy lifting or stress on the joints. Avoid actions that strain the joints especially the fingers. Avoid stress and anxiety, as these can make the symptoms worse. Maintain proper weight. Apply cold pack to painful joints during a flare-up to dull the

sensation of pain (Cedars-Sinai). However, cold is contraindicated where there is numbness or decreased circulation. Heat packs to joints that are painful but not reddened can increase blood flow to muscles and joints.

Michael Klaper, MD, has suggested a diet that eliminates the nightshade vegetables (tomatoes, potatoes, bellpeppers, tobacco and eggplant) as well as caffeine and dairy foods. (<http://www.vegsource.com/klaper/nutrition.htm>).

According to Indra Devi a ten-day diet of rice and squash will help decrease the arthritis symptoms (**see Questions and Answers** from www.yogaforum.com. (4/26/02)

3. Ayurvedic assessment and Ayurvedic based yoga recommendations

Rheumatoid arthritis is a Pitta imbalance because of the inflammation in the joints. At that time the joints may benefit by cooling the joint with ice. They should avoid exerting themselves and rest the joints. The digestive organs are the home of Pitta, and to bring Pitta home they need to cool the body and especially improve digestion-agni. This may be by eating at the appropriate times of the day and avoiding overeating. Also avoid hot spicy foods and eating cooling foods such as raw fruits and vegetables, grains and beans it is interesting that both of my arthritis subjects have digestive problems. KM with her gallbladder removal, acid reflux and diarrhea, and AT who has a long history of gallbladder, diverticulosis and diverticulitis, and partial gastrectomy The Pitta was or is imbalanced with both of them..

Rheumatoid arthritis can also be an imbalance of Kapha as the synovial fluid increases and the joint becomes more stagnant. The heart and lungs are home to Kapha so the person with a kapha imbalance may benefit by helping others or religious or devotional practices to bring the Kapha back to the heart, its home. Because the joints are stiff (stuck) they should make sure they are moving each day. They may feel better in a dry heat. They also may benefit from cleansing techniques such as colonics or sweating.

Vata imbalance causes pain in the body. In rheumatoid arthritis as the joint becomes destroyed it may become brittle and may be unstable. Osteoporosis may cause fractures in joints that are already unstable. For Vata imbalance hot baths/showers and massaging the body and joints with warm oils may be beneficial. For dietary changes warm foods, decreasing raw foods, chips, and crackers may help with pain and stiffness. Rest, relaxation, and meditation may help the Vata mind become more stable.

"The ayurveda suggests that arthritis is caused primarily by an excess of ama and lack of agni. This can be caused by poor digestion and a weakened colon, resulting in the accumulation of undigested food and the buildup of waste matter. Poor digestion allows toxins to accumulate in the body, and problems with the colon allow the toxins to reach the joints.

So, the way to treat arthritis is to stimulate the digestive fire (agni) and to suppress the ama.

Depending on a person's lifestyle, diet, and emotional pattern, either vata, pitta, or kapha goes out of balance. Then that particular dosha slows down agni (digestive fire), resulting in the toxic, sticky by-product of inadequate digestion known as ama.

Vata, the main active dosha, brings the ama into the colon, and from there it travels through the system and lodges in the bone tissue and in the joints, giving rise to the stiffness and pain characteristic of arthritis.

Ayurveda attempts to remove the ama from the joint and bring it back to the colon, and then to eliminate it. To do this, we need to keep the colon clean. It is best to determine the type of arthritis and manage it for the remedies recommended for the specific type. If you do not know whether the arthritis is vata, pitta, or kapha arthritis, take 1 teaspoon triphala at night with 1/2 to 1 cup warm water" (holisticonline.com "Ayurveda: Arthritis")

Koshas

The first yoga body is the Annamaya Kosha. This is the physical body. The quality of the food we take in must be of high quality to give the "food" body vitality. This is especially important in rheumatoid arthritis as the body is under the attack of its own immune system. Seasonal fresh fruits and vegetables are important along with whole grains and warm cooked foods to ground and warm the body. Besides food the body needs movement that is appropriate for the individual body such as asanas. These can be modified for the particular challenges of RA. It is important for the person with RA to do asanas with focus on how the body is feeling. People with a lot of pain sometimes mentally leave the body and don't pay attention or "feel" the body.

The vitality produced by the first kosha can provide the second body--the Pranamaya kosha--with the energy it needs. The prana body is made of energy channels called "nadis" which end in the chakras or spinning wheels of energy. These energy wheels are always active in the waking state. They are fed by sense impressions such as art, nature, and good food. If we give our chakras negative stimulation such as violent TV, stale or chemically laden food they will not be able to provide us with the energy we need. In sleep the chakras slow down and rest and we become replenished. With rheumatoid arthritis it is sometimes hard to rest due to pain. The pain can drain all energy from the body. A person suffering from arthritis may not be able to get the proper stimulation for the chakras such as a walk in nature or feel up to making a nutritious meal for themselves. Thus, they have less energy in an already depleted body. This may be the time to ask for assistance from family and friends. Although it may be hard for some persons with rheumatoid arthritis to ask for help it is crucial that others are allowed to shop for and or prepare the meals. Also getting out with others even in times of arthritic flare-ups can give stimulation to increase energy.

The third body--the Manomaya kosha--is the thinking body. This is the body of the mind. It can create uplifting thoughts if the previous two bodies have been refined. When thoughts are beneficial, the mind is content and at peace. RA is a challenge to positive thoughts. There may be much anxiety around the disease. Questions about health and independence or maybe even caring for loved ones are always present. Keeping well informed about the disease is important. Having all the facts available may decrease the fear of the unknown. To take the mind off of the worries of daily life a mantra may be beneficial. Mantra can help transport the mind to a higher level of perception and cognition.

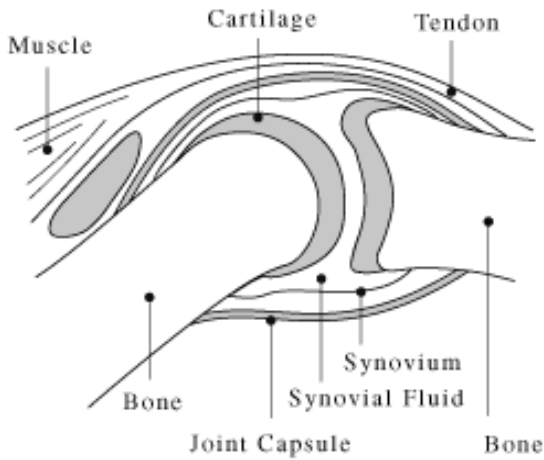
The 4th body is the Vijnanamaya kosha, "the body of wisdom". This body is made of transcendent thoughts. What happens to the physical body does not change the state of wisdom. This state is accessed by meditation, reflection, good company, spiritual literature and selfless service to others. Through service to others the physically challenged may be able to transcend their physical discomfort and anxiety about their health.

The two clients interviewed for this paper have both spent considerable time volunteering in service to others. K.M. teaches catechism to preteens at a Catholic church in her town. She takes part in a reading group at work that goes once a week to read to students in underprivileged neighborhoods and also has been a mentor to another underprivileged child for a few years. Although she sometimes feels unconnected to her church, her service to her community is important to her. A.T. does not attend a church at this time but has in the past and also taught children's Sunday school. She volunteers at the Arthritis Foundation by driving those that can't drive themselves and other Foundation duties. She was also serving food at her Senior Center until she became ill two years ago. She has always put others before herself and seeks out those that may need her help.

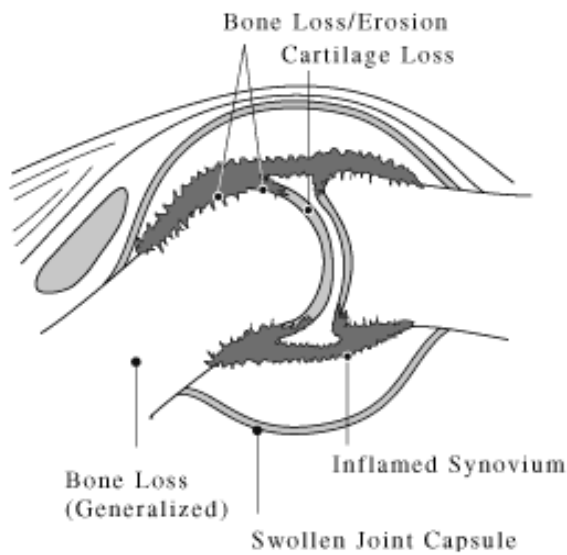
The fifth kosha is Anandamaya kosha, the "bliss body". This body is pure happiness. This body cannot be accessed if the previous four koshas have not been refined or fulfilled. As with all beings the work must be done on all kosha levels. This may be more difficult for those with physical challenges but not impossible. Finding a teacher that will teach to the individual's personal challenges is of great importance.

4. Common body reading

Normal Joint



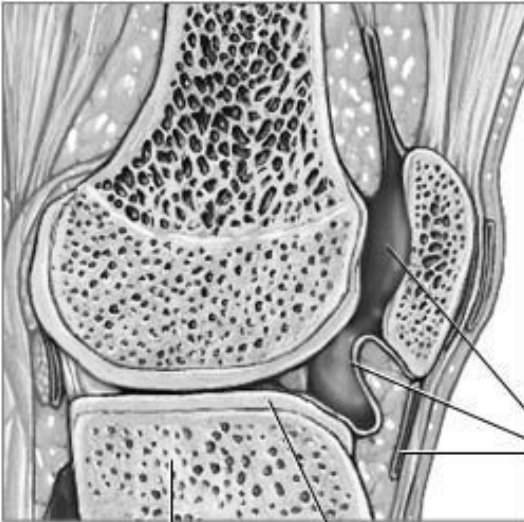
Joint Affected by Rheumatoid Arthritis



"A joint (the place where two bones meet) is surrounded by a capsule that protects and supports it. The joint capsule is lined with a type of tissue called synovium, which produces synovial fluid that lubricates and nourishes joint tissues. In rheumatoid arthritis, the synovium becomes inflamed, causing warmth, redness, swelling, and pain. As the disease progresses, the inflamed synovium invades and damages the cartilage and bone of the joint. Surrounding muscles, ligaments, and tendons become weakened. Rheumatoid arthritis also can cause more generalized bone loss that may lead to osteoporosis (fragile bones that are prone to fracture)."

Picture and text taken from National Institutes of Health website

Normal knee joint



In rheumatoid arthritis the synovium becomes inflamed and produces excess fluid, and later the cartilage becomes rough and pitted

Synovium

Bone

Cartilage

ADAM.



"Bony erosions seen at the margins of the joint, at the attachment of the synovium, are the hallmark of rheumatoid arthritis."

- taken from Johns Hopkins Arthritis website



Nodules are a common feature of RA patients on the surfaces of the arms and elbows.

- taken from Johns Hopkins Arthritis website



Ulnar deviation of the fingers at the MCP joint. Carpal bones cocked upwards.

-taken from Johns Hopkins Arthritis website



Erosion at the bony joints (carpal bones).

-taken from Johns Hopkins Arthritis website

5. Contraindicated yoga practices and general activities to modify or eliminate

Persons with RA should take caution to not overexert themselves. Long holdings of postures and numerous repetitions are contraindicated. It is important for them to warm up by doing JFS before moving on to postures. They should not push past the point of pain. For some, modifications of floor exercises are needed so that they may use a chair or lie in a bed. They should not be doing yoga if the joints are inflamed, but they should continue to do some stretching for range of motion (Cedars-Sinai Medical Center" Rheumatoid Arthritis")

For those clients who have had joint replacements special precautions are necessary. For hip replacement, adduction of the hips may need to be avoided (emedicine.com). To strengthen after a hip replacement leg extensions, abduction in a side lying position, standing hip extensions or lying down as in locust, knees to chest and squats may be done. If the hip replacement is done anteriorly, hip extension may be limited and if hip replacement is done posteriorly, hip flexion should ideally be kept less than 80 degrees, especially when newly recovering from surgery.

After knee replacement movement may be quite painful. When client is able, strengthening the muscles of the thighs is important along with stretching the quadriceps and hamstrings. This can be just starting with the joint freeing leg extensions after surgery and progressing to standing squats and other strengthening movements. The client may need padding when kneeling down or should forgo all kneeling positions if uncomfortable.

6. General recommendations

“Yoga is especially good for people with arthritis because the disease tends to reduce confidence and yoga increases it,’ says Paul Howard, MD, a rheumatologist in Phoenix. ‘You can gradually work your way up to the poses,’ he adds” (Arthritis Foundation “ Exercise and Arthritis : Let’s Do Yoga”)

It may be difficult for persons with arthritis to get up and move when they are having a bad day. The postures may need to be modified for their particular challenges and have an alternate program for when they are in pain or feeling more fatigued. They should start doing the asanas with just a few repetitions. They should avoid long holdings of postures unless they are working with a teacher who can assess if they are using the joints to hold the posture of the strength of their muscles and have slowly worked up to the longer holding. If they are having inflammation the movements need to be slower and gentler and maybe done lying down. If a joint is inflamed to the point where it may be septic (hot, swollen) they should have complete rest.

It is a fine balance between staying active with the postures and knowing when to relax. By doing yoga the person with RA will gain insight into how their body is feeling and get a chance to experiment with modifications of the many postures.

a-Therapeutic

Identify any physical limitations. Start with warm up series, such as JFS. See how they progress with that, and then add more strenuous exercises. Get the person moving as far as they are physically able. Encourage a balance between activity and rest.

b-Stabilize situation

Check in with them frequently. Because persons with RA have “flare ups”—times when the joint pain worsens—they should be careful to rest and not overexert themselves at those times. Assess any lifestyle changes they may be willing to make. Encourage them to do relaxation, meditation, rest, balanced with activity.

c. Maintenance

Includes an asana practice tailored to the clients needs also an alternate practice to be followed on days when the arthritis is more limiting. Massage and body work, as long as the joints massaged are not already inflamed. Must be a therapist who has experience with rheumatoid arthritis or other joint problems.

7. Questions and answers from www.yogaforums.com

1. My mother was diagnosed with Rheumatoid Arthritis about 5 years ago. The medicines doctors have prescribed for her never seem to work. I was watching the news last week and saw a woman with RA talking about how yoga therapy has helped her become more mobile. Do you believe that it could work for my mother? Some days she can't even get out of bed because she hurts so badly. Thank you for your time. If it will help, could you tell me how to get her started on it? (5/10/02)

Answer: Learning Yoga Breathing (specifically the wave motion of ujjaye pranayama as described in my book - Structural Yoga Therapy) can help a great deal with management of pain. In addition I would recommend getting the Yoga Therapy for Knees and Shoulders reprint from Yoga International magazine or from my Website boutique. It has articles on Yoga and Arthritis. Also I would recommend the arthritis diet from my teacher Indra Devi. I have attached it below for you. This works wonders if your mother will restrict her diet for 10 days.

2. My mother was diagnosed with Rheumatoid Arthritis about 5 years ago. The medicines doctors have prescribed for her never seem to work. I was watching the news last week and saw a woman with RA talking about how yoga therapy has helped her become more mobile. Do you believe that it could work for my mother? Some days she can't even get out of bed because she hurts so bad. Thank you for your time. If it will help, could you tell me how to get her started on it? Thanks again. My mother was diagnosed with Rheumatoid Arthritis about 5 years ago. The medicines doctors have prescribed for her never seem to work. I was watching the news last week and saw a woman with RA talking about how yoga therapy has helped her become more mobile. Do you believe that it could work for my mother? Some days she can't even get out of bed because she hurts so bad. Thank you for your time. If it will help, could you tell me how to get her started on it? (5/10/02)

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3. Thanks for the information regarding the Arthritis Diet by Indra Devi. My question today concerns the student I am working with. She has arthritis/diabetes/high blood pressure and recently had a hip replacement (8 months). Could you please give me cautionary advice for postures that I need to be aware of for this combination. We are using the Joint Freeing series (JFS) and lots of breathing, relaxation and meditation. Thanks for your help. (5/19/03)

Answer. For arthritis the JFS is a good idea. In general contraindications with this combination would be to make sure she is conformable in all motions that she is going, if not they should be modified to be effective at increasing circulation and minimizing stress/pain. For hip replacement the main contraindication would be to avoid cross legged poses (sitting on the floor), full flexion (go half way in forward bends) and in general external hip rotation poses. In other words, do not try to stretch her hamstrings or deep gluteal region, except in a mild fashion. Most people with high blood pressure are monitored and taking medication that controls the pressure. Rarely is there someone with high blood pressure that is unregulated if that is the case then we avoid moderate and strong backbending as it can stimulate the baroreceptor response to elevate heart rate and blood pressure. Namaste Mukunda

4. I'm offering yoga therapy to a 54-year-old man who is seemingly in good health. It turns out he has arthritis in his joints. I haven't seen an X-ray yet but he was told (and he feels them) that there are bone spurs in one hip, one shoulder, and in some of the spinal segments. He is responding beautifully to sequences that emphasize moving the joints through their R.O.M. Before we hold any pose, we move in and out with the breath, easing our way into greater opening and freedom. His main restriction is in the thoracic spine. Can you give me some advice in how to work with him? (4/26/02)

Answer. What you are doing is good. Vinyasa motions coordinated with breath can release joint pain. My sequence of joint freeing series is important as the specific sequence given there allows the prana to move through its 5 forms to the subtlest, called Vyana. The development is to teach him how to send Vyana Prana into the joint that he is moving. At first showing how to keep attention onto specific joint and visualize its functions anatomically, then progression is made by learning to stay attentive to the feeling of prana as it moves into and throughout the joint. The fifth chapter of the Hathayoga Pradipika describes this as the method of overcoming bad practice and how to generate healing force of prana.

5. Hi Mukunda, I have a student who has mild arthritis in the neck and has asked about doing Shoulderstand. I would appreciate your input on this matter. Thanks again for all your help. (7/1/02)

Answer. I would encourage the student to do the entire Joint Freeing Series regularly as a prelude to doing the half Shoulderstand as it is in my book. The ideal sequence would be to do all the poses on page two of the summary of the 24 Structural Yoga asanas. Drinking extra water especially now and also look up arthritis for more details on my supplemental Website - www.yogaforums.com

6. Dear Mukunda, I have a sister-in-law who has had 2 back surgeries and 1 hip surgery due to degenerative arthritis. The last back surgery was 3 months ago and it does not seem to have helped her much. She is 68 years old and has never done yoga. She is of German descent and a farmer of stocky build. Would there be something you could suggest that I could help her with? She has also had rotary cuff surgery because of a severe injury, and it left her with a weak arm. Her only exercise is walking. Also for a bursitis at the upper femur: how can that be stretched? (1/11/03)

Answer: For someone at this stage of life, who only does walking for exercise the joint freeing series is the best to give her. By emphasizing learning to coordinate the motions with her breath, she can begin to develop more bodily intuitive sensitivity to what she should and shouldn't be doing. I would not give more specifics unless I see such a person face to face. Bursitis is not a condition that responds to stretching. Stretching increases pitta, and bursitis as well as arthritis is an inflamed pitta condition. Therefore doing stretching is quite likely to inflame her condition. JFS is much better to be done gently and slowly to her capacity. If she is willing to make some bigger changes I would recommend she undertake Indra Devi's arthritis diet, which is basically for all increased pitta conditions. This will make the biggest difference. Details can be found on the archive site for Q & A - www.yogaforums.com then search for arthritis diet.

7. Thanks for the information regarding the Arthritis Diet by Indra Devi. My question today concerns the student I am working with. She has arthritis/diabetes/high blood pressure and recently had a hip replacement (8 months). Could you please give me cautionary advice for postures that I need to be aware of for this combination. We are using the Joint Freeing series (JFS) and lots of breathing, relaxation and meditation. (5/19/03)

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8. I have a new student with a history of knee trouble. She had torn cartilage in her left knee and had an operation 2 years ago. They left the tear but took out scar tissue. She has arthritis in her quad and patella. She also has "trouble" with her right knee. After light yoga practice both knees are sore. She is unable to put her right knee back in lunge because it causes her pain. Also her left knee hurts in extension on #4 of the joint freeing series. In #5 the left knee has pain when the knee is externally rotated. Her left knee has pain when it's bent in janusirshasana after 20 seconds or so. In general it seems her knees hurt when her kneecaps are pulled up. She is very motivated to have a regular asana practice. Any insight into what can be done for her knees, and what should be given/avoided in her practice in general would be most helpful.

Answer: A very challenging situation. The deeper solution might well be to do the arthritis diet (search for that topic on this site) as a 10 day cleanse to help remove ama (toxic material) from joints that are in pain. This is the more lasting solution, especially when combined with a regular Ayurveda pitta balancing diet. As far as asanas go I would have her do cat and slowly separate the knees so one is going gradually into groin stretch cited in my book on page 164. The entire series would be better to do yet this one motion might provide some relief when the runner stretch is painful. I have been finding that students who do the entire mobilization series described here in chapter 17 that their results are superior to doing just some of the motions.

Recommended diet:

This diet recommended by Indra Devi can eliminate arthritis pain.

Indra Devi gave this rice & squash diet during the Unity in Yoga's Peace Conference in Jerusalem January 1996. Mataji Indra Devi is called the "Mother of Yoga" as she was the first European woman Yoga teacher.

She passed away just 3 weeks prior to her 103rd birthday in 1992 and was quite healthy – having her own teeth, not wearing eyeglasses, no arthritis, and maintaining her figure. She lived her final 20 years in Buenos Aires, Argentina where she has over 2000 weekly students at her 6 major centers.

Mataji claimed that 90% of those people who followed this diet get relief from their symptoms within ten days. For ten days eat a diet consisting only of 90% whole grain (brown or basmati) rice and 10% of any type of cooked squash. Add no flavorings to the diet. Every spoonful of rice is to be chewed at least 50 times until only a watery gruel remains in the mouth. Every two hours between meals have a relaxing non-caffeine tea. During the diet consume no other foods – no coffee, sugar or condiments. Drink half your body weight in ounces of water each day. For those with hypoglycemia who need more protein, you can add soybeans or tofu to this diet to maintain your energy level.

Be prepared for your body's release of toxins that are the cause of the arthritis. This may take the form of headaches, body pains, constipation, moodiness, irritability, etc. Practice being present to yourself and do not medicate yourself to avoid your feelings with addictive substances – sugar, caffeine, food cravings – nor avoid your true feelings by watching excessive TV or seeking other sensory stimulation. If you become constipated take an enema or one tablespoon of castor oil just prior to bed.

If there is pain from the arthritis symptoms, take a raw potato and slice it to the size of the painful area. Lay the flesh of the potato against the painful site and tie it there with gauze. Let it stay until the potato becomes hard then replace it with another. This can be done during the day though it is especially good for overnight use.

If there is inflammation, apply a milk compress (a small towel soaked in milk) at room temperature. For fever apply a vinegar and water compress on the shin and calf area down to the foot. Wrap your lower legs fully to retain the moisture then lay in a warm bed and within four hours the fever will be gone.

Indra Devi made the following recommendations for an ongoing arthritis diet in her classic Yoga book Forever Young, Forever Healthy, pg. 98-99. The regular diet should be composed of fresh fruit, salad, vegetables, greens, nuts except peanut, whole grains, soy, dried fruit and honey. It should eliminate all meats, fish, eggs, salt, peas, beans, lentils, asparagus, mushrooms, processed flour, sugar, coffee, tea (other than decaffeinated herbal), cocoa, and chocolate.

I would add that one should especially pay attention to an anti-pitta regimen (to lessen heat and inflammation) is recommended for your regular routine. Following this an Ayurvedic pitta balancing diet (to lessen heat and inflammation - specifics can be found in most Ayurvedic books) is recommended to become your regular routine. Eliminate all nightshades (potato, tomato, eggplant, bell pepper, and tobacco) and spicy foods. This heat balancing diet will help you to identify the most likely sources of inflammation and irritation. Details on personalizing this Yogic and Ayurveda approach to lifestyle can be found in Prakruti - Your Ayurvedic Constitution by Robert Svoboda or see The Three Season Diet by John Douillard.

The best drink for arthritis is distilled water with fresh lemon juice taken as often as possible (1/2 to three lemons per glass of distilled water). An equally effective way for those who do not want to fast or go on the ten-day cleanse is the sixty day lemon juice plan. On the first day one takes the juice of one lemon before breakfast; on the second day it is taken before breakfast and before lunch, on the third day before breakfast, lunch and dinner. You continue to increase this quantity until you reach thirty. That is 10 lemons before breakfast, ten before lunch and ten before dinner. The next day you should start decreasing their number by one every day until you are back to where you started.

Lemon juice is a most potent solvent for breaking up the calcified formations existing in the body. One has only to be careful to protect one's teeth by rinsing them thoroughly after drinking the lemon juice, or by sipping it through a straw. For those badly crippled with arthritis and unable to exercise, the lemon juice plan, together with lemon leaf tea will give satisfactory results. The tea is prepared in the following way: boil 4 lemon leaves and 4 orange leaves in 3 cups of water until the liquid is reduced to one cup. Add raw, unheated honey and the juice of half a lemon. First squeeze out the juice then put into the cup the half lemon itself as well. Drink at night before retiring to be

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9. Appendix

Modifications of Joint Freeing Series (as given to A.T.)



Dorsi Flexion



Plantar Flexion



Knee Extension



Knee Flexion



Shoulder Adduction



Shoulder Flexion



Shoulder Extension



Standing Squat



Hip Extension



Warrior

10. Biography

Gail Yates is a registered nurse. She has a 500 hour Kripalu Yoga certification and a level one Reiki certification. She is graduate of Mukunda Stiles Structural Yoga Therapy course.