ICRS Cartilage Injury Evaluation Package

Consists of two parts:

A: PATIENT PART:
ICRS Injury questionnaire
The IKDC Subjective Knee Evaluation Form-2000

B: SURGEONS PART
ICRS Knee Surgery History Registration
IKDC KneeExamination form-2000
ICRS- Articular cartilage injury mapping system
ICRS-Articular cartilage injury classification
ICRS-Osteochondritis dissecans classification
ICRS-Cartilage Repair Assessment system

The ICRS Clinical Cartilage Injury Evaluation system-2000 was developed during ICRS 2000 Standards Workshop at Schloss Münchenwiler, Switzerland, January 27-30, 2000 and further discussed during the 3rd ICRS Meeting in Göteborg, Sweden, Friday April 28, 2000.
The participants in the Clinical Münchenwiler Evaluation Group were as follows:

Chairman Mats Brittberg, Sweden
Paolo Aglietti, Italy
Ralph Gambardella, USA
Laszlo Hangody, Hungary
Hans Jörg Hauselmann, Switzerland
Roland P Jakob, Switzerland
David Levine, USA
Stefan Lohmander, Sweden
Bert R Mandelbaum, USA
Lars Peterson, Sweden
Hans-Ulrich Staubli, Switzerland

There was a discussion regarding the use of IKDC-1999 vs KOOS (**K**nee Injury and **O**steoarthritis **O**utcome **S**core). The decision in Göteborg was to continue with IKDC (IKDC representatives: A. Anderson, R. Jakob, H.-U. Stäubli) but there will also be comparative studies with the KOOS (http://www.koos.nu/)

The clinical evaluation system can also be combined with the ICRS Imaging Protocol as well as the ICRS Biomechanical Protocol

Comments on the ICRS Cartilage Evaluation forms to: mats.brittberg@telia.com

ICRS – CARTILAGE INJURY STANDARD EVALUATION FORM-2000
PATIENTS PART

Patient Name:_____

Birthdate : Day_____**Month**_____**Year**_____

Street:_____ _____ Zip:_____Town:_____Country:_____

Phone:_____E -mail:_____

Gender:_____

Height:_____cm Weight:_____Kg

Examiner:_____Date of examination:_____

Localisation:

Involved knee: Right ___ Left___

Opposite knee: Normal__ Nearly Normal__Abnormal__Severely abnormal__

Onset of symptoms

(date):_____ Gradual:_____Acute:_____

Etiology/Cause of injury:

Activity at injury:

Activity of daily living:_____Sports_____

Traffic_____Type of vehicle_____ Work_____

Activity-level:	**before Injury**	**Just now prior to surgery**
I: high competitive sportsman/woman	yes___No___	yes___No___
II: well-trained and frequently sporting:	yes___No___	yes___No___
III: sporting sometimes	yes___No___	yes___No___
IV: Non-sporting	yes___No___	yes___No___

Functional status

I: I can do everything that I want to do with my joint
II: I can do nearly everything that I want to do with my joint
III: I am restricted and a lot of things that I want to do with my joint are not possible
IV: I am very restricted and I can do almost nothing with my joint without severe pain and disability

Preinjury:	I___II___III___IV___
Just prior to surgery	I___II___III___IV___
Present activity level	I___II___III___IV___

IKDC CURRENT HEALTH ASSESSMENT FORM *

Patients Part:

Your Full Name _____

Your Date of Birth _____/_____/_____
Day Month Year

Today's Date _____/_____/_____
Day Month Year

1. In general, would you say your health is:

- ❑ Excellent
- ❑ Very Good
- ❑ Good
- ❑ Fair
- ❑ Poor

2. Compared to one year ago, how would you rate your health in general now?

- ❑ Much better now than 1 year ago
- ❑ Somewhat better now than 1 year ago
- ❑ About the same as 1 year ago
- ❑ Somewhat worse now than 1 year ago
- ❑ Much worse now than 1 year ago

3. The following items are about activities you might do during a typical day. Does your health now limit you in these activities? If so, how much?

		Yes, Limited A Lot	Yes, Limited A Little	No, Not Limited At All
a.	Vigorous activities, such as running, lifting heavy objects, participating in strenuous sports	❑	❑	❑
b.	Moderate activities, such as moving a table, pushing a vacuum cleaner, bowling, or playing golf	❑	❑	❑
c.	Lifting or carrying groceries	❑	❑	❑
d.	Climbing several flights of stairs	❑	❑	❑
e.	Climbing one flight of stairs	❑	❑	❑
f.	Bending, kneeling or stooping	❑	❑	❑
g.	Walking more than a mile	❑	❑	❑
h.	Walking several blocks	❑	❑	❑
i.	Walking one block	❑	❑	❑
j.	Bathing or dressing yourself	❑	❑	❑

4. **During the <u>past 4 weeks</u>, have you had any of the following problems with your work or other regular daily activities as a result of your physical health?**

		YES	NO
a.	Cut down on the amount of time you spent on work or other activities	❑	❑
b.	Accomplished less than you would like	❑	❑
c.	Were limited in the kind of work or other activities	❑	❑
d.	Had difficulty performing the work or other activities (for example, it took extra effort)	❑	❑

5. **During the <u>past 4 weeks</u>, have you had any of the following problems with your work or other regular daily activities as a result of any emotional problems (such as feeling depressed or anxious)?**

		YES	NO
a.	Cut down on the amount of time you spent on work or other activities	❑	❑
b.	Accomplished less than you would like	❑	❑
c.	Didn't do work or other activities as carefully as usual	❑	❑

6. **During the <u>past 4 weeks</u>, to what extent has your physical health or emotional problems interfered with your normal social activities with family, friends, neighbors, or groups?**

❑Not At All
❑Slightly
❑Moderately
❑Quite a Bit
❑Extremely

7. **How much bodily pain have you had during the <u>past 4 weeks</u>?**

❑None
❑Very Mild
❑Mild
❑Moderate
❑Severe
❑Very Severe

8. **During the past 4 weeks, how much did pain interfere with your normal work (including both work outside the home and housework)?**

❑Not at All
❑A Little Bit
❑Moderately
❑Quite a Bit
❑Extremely

9. These questions are about how you feel and how things have been with you during the past 4 weeks. For each question, please give the one answer that comes closest to the way you have been feeling. How much of the time during the <u>past 4 weeks</u>…

	All of the time	Most of the time	A good bit of the time	Some of the time	A little of the time	None of the time
a. Did you feel full of pep?	❑	❑	❑	❑	❑	❑
b. Have you been very nervous?	❑	❑	❑	❑	❑	❑
c. Have you felt calm and peaceful?	❑	❑	❑	❑	❑	❑
d. Did you have a lot of energy?	❑	❑	❑	❑	❑	❑
e. Have you felt down-hearted and blue?	❑	❑	❑	❑	❑	❑
f. Did you feel worn out?	❑	❑	❑	❑	❑	❑
g. Have you been a happy person	❑	❑	❑	❑	❑	❑
h. Did you feel tired?	❑	❑	❑	❑	❑	❑

10. During the <u>past 4 weeks</u>, how much of the time has your physical health or emotional problems interfered with your social activities (like visiting with friends, relatives, etc.)?

❑All of the time
❑Most of the time
❑Some of the time
❑A little of the time
❑None of the time

11. How TRUE or FALSE is each of the following statements for you?

	Definitely True	Mostly True	Don't Know	Mostly False	Definitely False
a. I seem to get sick a little easier than other people	❑	❑	❑	❑	❑
b. I am as healthy as anybody I know	❑	❑	❑	❑	❑
c. I expect my health to get worse	❑	❑	❑	❑	❑
d. My health is excellent	❑	❑	❑	❑	❑

2000 IKDC SUBJECTIVE KNEE EVALUATION FORM

Patients Part:

Your Full Name_____

Today's Date: _____/_____/_____ (Day / Month / Year)

Date of Injury: _____/_____/_____ (Day / Month / Year)

SYMPTOMS*:

*Grade symptoms at the highest activity level at which you think you could function without significant symptoms, even if you are not actually performing activities at this level.

1. What is the highest level of activity that you can perform without significant knee pain?

- ❑ Very strenuous activities like jumping or pivoting as in basketball or soccer
- ❑ Strenuous activities like heavy physical work, skiing or tennis
- ❑ Moderate activities like moderate physical work, running or jogging
- ❑ Light activities like walking, housework or yard work
- ❑ Unable to perform any of the above activities due to knee pain

2. During the past 4 weeks, or since your injury, how often have you had pain?

	0	1	2	3	4	5	6	7	8	9	10	
Never	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑	Constant

3. If you have pain, how severe is it?

	0	1	2	3	4	5	6	7	8	9	10	
No pain	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑	Worst pain imaginable

4. During the past 4 weeks, or since your injury, how stiff or swollen was your knee?

- ❑ Not at all
- ❑ Mildly
- ❑ Moderately
- ❑ Very
- ❑ Extremely

5. What is the highest level of activity you can perform without significant swelling in your knee?

- ❑ Very strenuous activities like jumping or pivoting as in basketball or soccer
- ❑ Strenuous activities like heavy physical work, skiing or tennis
- ❑ Moderate activities like moderate physical work, running or jogging
- ❑ Light activities like walking, housework, or yard work
- ❑ Unable to perform any of the above activities due to knee swelling

6. During the past 4 weeks, or since your injury, did your knee lock or catch?

❑ Yes ❑ No

7. What is the highest level of activity you can perform without significant giving way in your knee?

- ❑ Very strenuous activities like jumping or pivoting as in basketball or soccer
- ❑ Strenuous activities like heavy physical work, skiing or tennis
- ❑ Moderate activities like moderate physical work, running or jogging
- ❑ Light activities like walking, housework or yard work
- ❑ Unable to perform any of the above activities due to giving way of the knee

SPORTS ACTIVITIES:

8. What is the highest level of activity you can participate in on a regular basis?

- ❑ Very strenuous activities like jumping or pivoting as in basketball or soccer
- ❑ Strenuous activities like heavy physical work, skiing or tennis
- ❑ Moderate activities like moderate physical work, running or jogging
- ❑ Light activities like walking, housework or yard work
- ❑ Unable to perform any of the above activities due to knee

9. How does your knee affect your ability to:

		Not difficult at all	Minimally difficult	Moderately Difficult	Extremely difficult	Unable to do
a.	Go up stairs	❑	❑	❑	❑	❑
b.	Go down stairs	❑	❑	❑	❑	❑
c.	Kneel on the front of your knee	❑	❑	❑	❑	❑
d.	Squat	❑	❑	❑	❑	❑
e.	Sit with your knee bent	❑	❑	❑	❑	❑
f.	Rise from a chair	❑	❑	❑	❑	❑
g.	Run straight ahead	❑	❑	❑	❑	❑
h.	Jump and land on your involved leg	❑	❑	❑	❑	❑
i.	Stop and start quickly	❑	❑	❑	❑	❑

FUNCTION:

10. How would you rate the function of your knee on a scale of 0 to 10 with 10 being normal, excellent function and 0 being the inability to perform any of your usual daily activities which may include sports?

FUNCTION PRIOR TO YOUR KNEE INJURY:

Cannot perform daily activities — No limitation

0	1	2	3	4	5	6	7	8	9	10
❑	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑

CURRENT FUNCTION OF YOUR KNEE:

Cannot perform daily activities — No limitation

0	1	2	3	4	5	6	7	8	9	10
❑	❑	❑	❑	❑	❑	❑	❑	❑	❑	❑

SCORING INSTRUCTIONS FOR THE 2000 IKDC SUBJECTIVE KNEE EVALUATION FORM

Several methods of scoring the IKDC Subjective Knee Evaluation Form were investigated. The results indicated that summing the scores for each item performed as well as more sophisticated scoring methods.

The responses to each item are scored using an ordinal method such that a score of 1 is given to responses that represent the lowest level of function or highest level of symptoms. For example, item 1, which is related to the highest level of activity without significant pain is scored by assigning a score of 1 to the response "Unable to Perform Any of the Above Activities Due to Knee" and a score of 5 to the response "Very strenuous activities like jumping or pivoting as in basketball or soccer". For item 2, which is related to the frequency of pain over the past 4 weeks, the response "Constant" is assigned a score of 1 and "Never" is assigned a score of 11.

The IKDC Subjective Knee Evaluation Form is scored by summing the scores for the individual items and then transforming the score to a scale that ranges from 0 to 100. **Note**: The response to item 10 "Function Prior to Knee Injury" is not included in the overall score. The steps to score the IKDC Subjective Knee Evaluation Form are as follows:

1. Assign a score to the individual's response for each item, such that lowest score represents the lowest level of function or highest level of symptoms.
2. Calculate the raw score by summing the responses to all items with the exception of the response to item 10 "Function Prior to Your Knee Injury"
3. Transform the raw score to a 0 to 100 scale as follows:

$$\text{IKDC Score} = \left[\frac{\text{Raw Score - Lowest Possible Score}}{\text{Range of Scores}}\right] \text{x}100$$

Where the lowest possible score is 18 and the range of possible scores is 87. Thus, if the sum of scores for the 18 items is 60, the IKDC Score would be calculated as follows:

$$\text{IKDC Score} = \left[\frac{60 - 18}{87}\right] \text{x}100$$

$$\text{IKDC Score} = 48.3$$

The transformed score is interpreted as a measure of function such that higher scores represent higher levels of function and lower levels of symptoms. A score of 100 is interpreted to mean no limitation with activities of daily living or sports activities and the absence of symptoms.

The IKDC Subjective Knee Score can still be calculated if there are missing data, as long as there are responses to at least 90% of the items (i.e. responses have been provided for at least 16 items). To calculate the raw IKDC score when there are missing data, substitute the average score of the items that have been answered for the missing item score(s). Once the raw IKDC score has been calculated, it is transformed to the IKDC Subjective Knee Score as described above.

ICRS KNEE HISTORY REGISTRATION-PREVIOUS SURGERY

Surgeons part

Type of surgery: Check all that apply
Meniscal surgery:

Medial meniscal surgery :
Partial resection___ Subtotal resection__
Meniscal suture___
Meniscal Transplant___
Open___Arthroscop___

Lateral Meniscal Surgery
Partial resection___ Subtotal resection__
Meniscal Suture___
Meniscal Transplant___
Open___Arthroscop__

Ligament Surgery:
ACL repair__Intraarticular __ Extraarticular___
PCL-repair__Intraarticular___Extraarticular___
Medial-___Lateral-Collateral-ligament reconstruction___

Type of graft:
Patella-tendon__ Ipsilateral__Contralateral__
Single hamstrings-graft___
2 bundle hamstrings-graft___
4 bundle hamstrings-graft___
Quadriceps-graft___
Allograft___
Other___

Extensor Mechanism surgery:
Patella tendon repair___ Quadriceps-tendon repair___

Patellofemoral surgery:
Soft tissue realignement:
Medial imbrication___ Lateral release___
Bone realignement:
Tibial tubercle transfer:
Proximal__Distal__Medial__Lateral__Anterior__
Trochlear plasty__
Patellectomy__

Cartilage resurfacing and reconstructive surgery:

Debridement (shaving of fibrillated cartile and cartilage flaps)	_____
Abrasion arthroplast	_____
Microfracture	_____
Subchondral drilling	_____
Carbon fibre resurfacing	_____
Osteochondral allograft	_____
Multiple osteochondral autologous grafts	_____
Periosteal resurfacing	_____
Perichondral resurfacing	_____
Autologous chondrocyte implantation + periosteum	_____
Autologous chondrocyte implantation with membrane	_____
Other type of technique: _____	_____

Surgeons part

Osteotomy: Tibia____Femur____ Varus____Valgus_____

Imaging techniques:

Plain x-rays:_____ Varus-angle_____Valgus-angle_____

CT____ CT-arthrography____ MRI____ Scintigraphy_____

Findings:

Articular cartilage appearance:_____

_____

Bone:_____ _____

_____

Ligaments:_____ _____

_____

Menisci:_____ _____

_____

2000 IKDC KNEE Examination Form

Surgeons part

Patient Name:_____ **Date of Birth:** ____/_____/_____ Day Month Year

Gender: ? F ? M **Age**:_____ **Date of Examination**:_____/_____/_____ Day Month Year

Generalized Laxity:	?tight	?normal	?lax	
Alignment:	?obvious varus	?normal	?obvious valgus	
Patella Position:	?obvious baja	?normal	?obvious alta	
Patella Subluxation/Dislocation:	?centered	?subluxable	?subluxed	?dislocated
Range of Motion (Ext/Flex):	Index Side: passive_____/_____/_____			active_____/_____/_____
	Opposite Side: passive_____/_____/_____			active_____/_____/_____

SEVEN GROUPS		FOUR GRADES A Normal	B Nearly Normal	C Abnormal	D Severely Abnormal	*Group Grade A	B	C	D
1.	**Effusion**	? None	? Mild	? Moderate	? Severe	?	?	?	?
2.	**Passive Motion Deficit**								
	ΔLack of extension	? <3°	? 3 to 5°	? 6 to 10°	? >10°				
	ΔLack of flexion	? 0 to 5°	? 6 to 15°	? 16 to 25°	? >25°	?	?	?	?
3.	**Ligament Examination** (manual, instrumented, x-ray)								
	ΔLachman (25° flex) (134N)	? -1 to 2mm	? 3 to 5mm(1^+) ? <-1 to –3	? 6 to 10mm(2^+) ? <-3 stiff	? >10mm(3^+)				
	ΔLachman (25° flex) manual max	? -1 to 2mm	? 3 to 5mm	? 6 to 10mm	? >10mm				
	Anterior endpoint:	? firm		? soft					
	ΔTotal AP Translation (25° flex)	? 0 to 2mm	? 3 to 5mm	? 6 to 10mm	? >10mm				
	ΔTotal AP Translation (70° flex)	? 0 to 2mm	? 3 to 5mm	? 6 to 10mm	? >10mm				
	ΔPosterior Drawer Test (70° flex)	? 0 to 2mm	? 3 to 5mm	? 6 to 10mm	? >10mm				
	ΔMed Joint Opening (20° flex/valgus rot)	? 0 to 2mm	? 3 to 5mm	? 6 to 10mm	? ≥10mm				
	ΔLat Joint Opening (20° flex/varus rot)	? 0 to 2mm	? 3 to 5mm	? 6 to 10mm	? >10mm				
	ΔExternal Rotation Test (30° flex prone)	? <5°	? 6 to 10°	? 11 to 19°	? >20°				
	ΔExternal Rotation Test (90° flex prone)	? <5°	? 6 to 10°	? 11 to 19°	? >20°				
	ΔPivot Shift	? equal	? +glide	? ++(clunk)	? +++(gross)				
	ΔReverse Pivot Shift	? equal	? glide	? gross	? marked				
						?	?	?	?
4.	**Compartment Findings**			crepitation with					
	ΔCrepitus Ant. Compartment	? none	? moderate	? mild pain	? >mild pain				
	ΔCrepitus Med. Compartment	? none	? moderate	? mild pain	? >mild pain				
	ΔCrepitus Lat. Compartment	? none	? moderate	? mild pain	? >mild pain				
5.	**Harvest Site Pathology**	? none	? mild	? moderate	? severe				
6.	**X-ray Findings**								
	Med. Joint Space	? none	? mild	? moderate	? severe				
	Lat. Joint Space	? none	? mild	? moderate	? severe				
	Patellofemoral	? none	? mild	? moderate	?severe				
	Ant. Joint Space (sagittal)	? none	? mild	? moderate	? severe				
	Post. Joint Space (sagittal)	? none	? mild	? moderate	? severe				
7.	**Functional Test**								
	One Leg Hop (% of opposite side)	? ≥90%	? 89 to 76%	? 75 to 50%	? <50%				
****Final Evaluation**						?	?	?	?

* Group grade: The lowest grade within a group determines the group grade

** Final evaluation: the worst group grade determines the final evaluation for acute and subacute patients. For chronic patients compare preoperative and postoperative evaluations. In a final evaluation only the first 3 groups are evaluated but all groups must be documented. Δ Difference in involved knee compared to normal or what is assumed to be normal.

IKDC COMMITTEE AOSSM: Anderson, A., Bergfeld, J., Boland, A. Dye, S., Feagin, J., Harner, C. Mohtadi, N. Richmond, J. Shelbourne, D., Terry, G. ESSKA: Staubli, H., Hefti, F., Hoher, J., Jacob, R., Mueller, W., Neyret, P. APOSSM: Chan, K., Kurosaka, M.

INSTRUCTIONS FOR THE 2000 IKDC KNEE EXAMINATION FORM

The Knee Examination Form contains items that fall into one of seven measurement domains. However, only the first three of these domains are graded. The seven domains assessed by the Knee Examination Form are:

1. *Effusion*
   An effusion is assessed by ballotting the knee. A fluid wave (less than 25 cc) is graded mild, easily ballotteable fluid – moderate (25-60 cc), and a tense knee secondary to effusion (greater than 60 cc) is rated severe.

2. *Passive Motion Deficit*
   Passive range of motion is measured with a gonimeter and recorded on the form for the index side and opposite or normal side. Record values for zero point/hyperextension/flexion (e.g. 10 degrees of hyperextension, 150 degrees of flexion = 10/0/150; 10 degrees of flexion to 150 degrees of flexion = 0/10/150). Extension is compared to that of the normal knee.

3. *Ligament Examination*
   The Lachman test, total AP translation at 70 degrees, and medial and lateral joint opening may be assessed with manual, instrumented or stress x-ray examination. Only one should be graded, preferably a "measured displacement". A force of 134 N (30 lbs) and the maximum manual are recorded in instrumented examination of both knees. Only the measured displacement at the standard force of 134 N is used for grading. The numerical values for the side to side difference are rounded off, and the appropriate box is marked.

   The end point is assessed in the Lachman test. The end point affects the grading when the index knee has 3-5 mm more anterior laxity than the normal knee. In this case, a soft end point results in an abnormal grade rather than a nearly normal grade.

   The 70-degree posterior sag is estimated by comparing the profile of the injured knee to the normal knee and palpating the medial femoral tibia step off. It may be confirmed by noting that contraction of the quadriceps pulls the tibia interiorly.

   The external rotation tests are performed with the patient prone and the knee flexed 30° and 70°.
   Equal external rotational torque is applied to both feet and the degree of external rotation is recorded.

   The pivot shift and reverse pivot shift are performed with the patient supine, with the hip in 10-20 degrees of abduction and the tibia in neutral rotation using either the Losee, Noyes, or Jakob techniques. The greatest subluxation, compared to the normal knee, should be recorded.

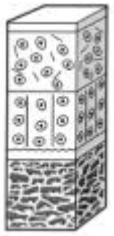
4. *Compartment Findings*
   Patellofemoral crepitation is elicited by extension against slight resistance. Medial and lateral compartment crepitation is elicited by extending the knee from a flexed position with a varus stress and then a valgus stress (i.e., McMurray test). Grading is based on intensity and pain.

5. *Harvest Site Pathology*
   Note tenderness, irritation or numbness at the autograft harvest site.

6. *X-ray Findings*
   A bilateral, double leg PA weightbearing roentgenogram at 35-45 degrees of flexion (tunnel view) is used to evaluate narrowing of the medial and lateral joint spaces. The Merchant view at 45 degrees is used to document patellofemoral narrowing. A mild grade indicates minimal changes (i.e., small osteophytes, slight sclerosis or flattening of the femoral condyle) and narrowing of the joint space which is just detectable. A moderate grade may have those changes and joint space narrowing (e.g., a joint space of 2-4 mm side or up to 50% joint space narrowing). Severe changes include a joint space of less than 2 mm or greater than 50% joint space narrowing.

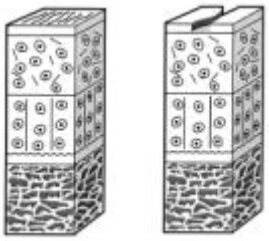
7. *Functional Test*
   The patient is asked to perform a one leg hop for distance on the index and normal side. Three trials for each leg are recorded and averaged. A ratio of the index to normal knee is calculated.

ICRS Grade 0 - Normal



ICRS Grade 1 – Nearly Normal

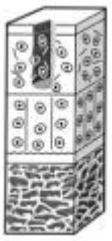
Superficial lesions. Soft indentation (A) and/or superficial fissures and cracks (B)



A B

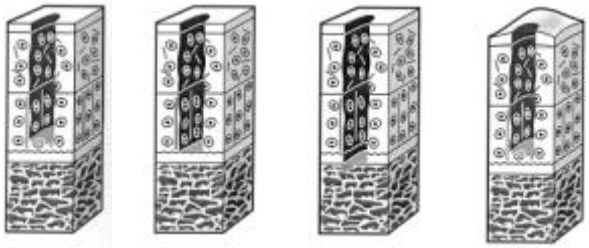
ICRS Grade 2 – Abnormal

Lesions extending down to <50% of cartilage depth



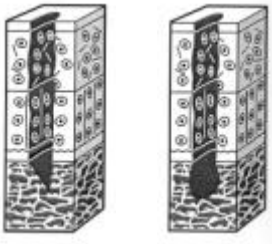
ICRS Grade 3 – Severely Abnormal

Cartilage defects extending down >50% of cartilage depth (A) as well as down to calcified layer (B) and down to but not through the subchondral bone (C). Blisters are included in this Grade (D)

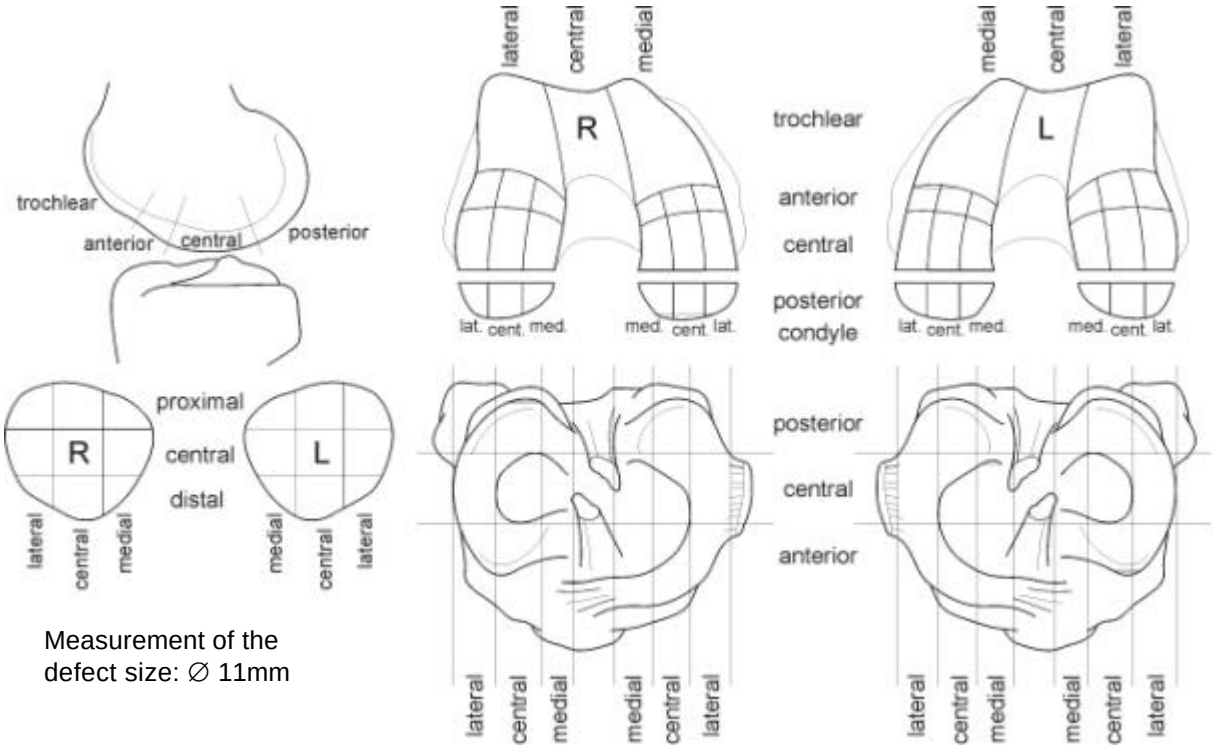


A B C D

ICRS Grade 4 – Severely Abnormal



A B



Measurement of the defect size: ∅ 11mm

Femur

First lesion

Second lesion

Side	Right	Left		
Condyle	medial	lateral		
Sagital plane	trochlear	anterior	central	posterior
Frontal plane	lateral	central	medial	

Cartilage lesion (Grade) (*)
Defect size pre-debridement mm
Defect size post-debridement mm

Tibia

First lesion

Second lesion

Side	Right	Left	
Plateau	medial	lateral	
Sagital plane	anterior	central	posterior
Frontal plane	lateral	central	medial

Cartilage lesion (Grade) (*)
Defect size pre-debridement mm
Defect size post-debridement mm

Patella

First lesion

Second lesion

Side	Right	Left	
Sagital plane	distal	central	proximal
Frontal plane	lateral	central	medial

Cartilage lesion (Grade) (*)
Defect size pre-debridement mm
Defect size post-debridement mm

Diagnosis: Traumatic cartilage lesion OD OA AVN Others

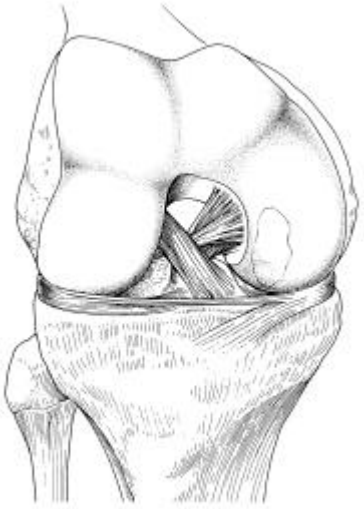
Biopsy/Osteochondral Plugs: Location: Number of Plugs: Diameter of Plugs:

Treatment: Shaving Drilling Others:
Mosaic-Plasty Microfracture
Autologous Chondrocyte Implantation (ACI)

Notes:

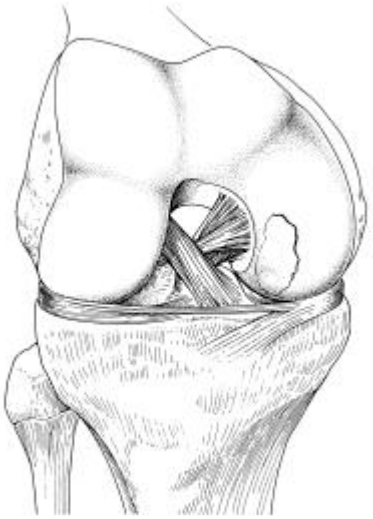
ICRS Classification of OCD-Lesions (Osteochondritis-Dissecans)

ICRS OCD I



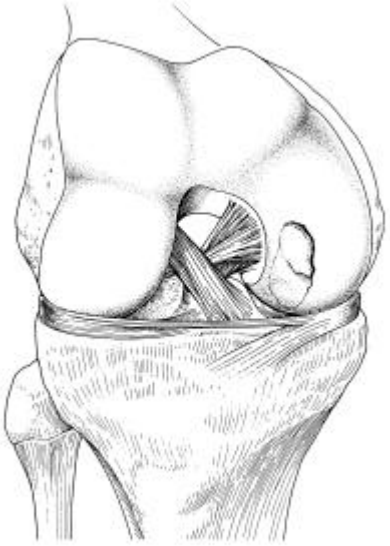
Stable, continuity: Softened area covered by intact cartilage.

ICRS OCD II



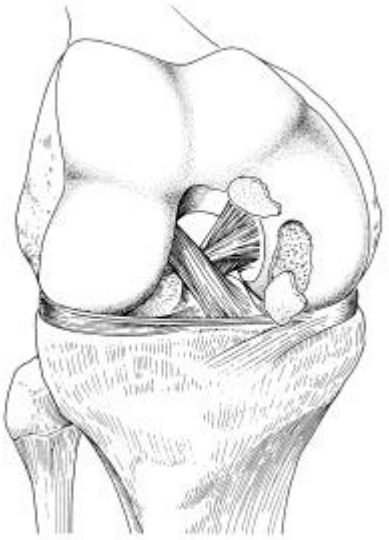
Partial discontinuity, stable on probing

ICRS OCD III



Complete discontinuity, ”dead in situ”, not dislocated.

ICRS OCD IV



Dislocated fragment, loose within the bed or empty defect.> 10mm in depth is B-subgroup

CARTILAGE REPAIR ASSESSMENT

Criteria	Points	
Degree of Defect Repair **I Protocol A** [(1)]	* In level with surrounding cartilage * 75% repair of defect depth * 50% repair of defect depth * 25% repair of defect depth * 0% repair of defect depth	4 3 2 1 0
I Protocol B [(2)]	* 100% survival of initially grafted surface * 75% survival of initially grafted surface * 50% survival of initially grafted surface * 25% survival of initially grafted surface * 0% (plugs are lost or broken)	4 3 2 1 0
II Integration to Border zone	* Complete integration with surrounding cartilage * Demarcating border < 1mm * 3/4 of graft integrated, 1/4 with a notable border >1mm width * 1/2 of graft integrated with surrounding cartilage, 1/2 with a notable border > 1mm * From no contact to 1/4 of graft integrated with surrounding cartilage	4 3 2 1 0
III Macroscopic Appearance	* Intact smooth surface * Fibrillated surface * Small, scattered fissures or cracs * Several, small or few but large fissures * Total degeneration of grafted area	4 3 2 1 0
Overall Repair Assessment	**Grade I** **normal** **12 P** **Grade II** **nearly normal** **11-8 P** **Grade III** **abnormal** **7-4 P** **Grade IV** **severely abnormal** **3-1 P**	

Cartilage Biopsy • **Location** _____

(1) Protocol A:	(2) Protocol B:
autologous chondrocyte implantation (ACI); periosteal or perichondrial transplantation; subchondral drilling; microfracturing; carbon fibre implants; others:	Mossaicplasty; OAT; osteochondral allografts; others: