

# Patient case study of knee injury



**ASSIGN  
BUSTER**

Short case description: 25 years old, female injured her right knee during basketball game. She left playing, required little assistance to get her car. PCP evaluated her, gave her non-steroidal anti-inflammatory with P. T referral.

Brief summary of patient history: injury occurred when she planted her right leg and rotated to the right to evade a defender. She denied hearing a pop, she reported immediate pain was 8 out of 10 on a visual analog scale. Her current pain level is 5 out of 10. Patient came 2 days after injury, with knee swelling and locking. . Patient pain and mechanism of injury are consistent with a meniscus injury.

Examination:

Key

Examination elements	ICF category assessing	Finding
Pain	Body structure function	5/10 with non-steroidal medication
Effusion	Body structure function	Present (first

		grade)
Active knee flexion	Body structure function	10-110
Active knee extension	Body structure function	0-10
Passive knee flexion	Body structure function	10-120
Passive knee extension	Body structure function	0-5
Manual Muscle test for knee flexion	Body structure function	4/5
Manual Muscle test for knee	Body structure function	3+/5

extension

Positive  
 McMurray's test Health condition with palpable click

Positive  
 Joint line tenderness test Body structure function with reproduction of pain on medial tibiofemoral joint

Positive  
 Apley's compression test Health condition with reproduction of pain consistent with medial meniscal injury

Assistive  
 Ambulation Activity limitation tool

		(single cane)
		Limping, antalgic gait
squatting	Activity limitation	Quite a bit difficult
Walking a mile	Activity limitation	Extreme difficulty
Going up or down 10 stairs	Activity limitation	Quite a bit difficulty
Standing one hour	Activity limitation	Extreme difficulty
Running over even ground	Activity limitation	Extreme difficulty
Ability to look at home kitchen	participation- involvement	Quite a bit difficulty

Ability to

attend	participation-	Quite a bit
social	involvement	difficulty
meetings		

Usual

sports	participation-	Extreme
activity	involvement	difficulty

Assessment/evaluation: 25 Y/O female had right medial meniscus sprain with positive special Tests, pain, effusion, weakness, limited knee range of movement of flexion and extension and limited activities of daily living with inability to participate in usual sports activities.

Interventions: physical therapy treatment include:

1. Modalities to reduce pain (whirlpool, electric stimulation, and cryotherapy).
2. Modalities to reduce knee effusion (whirlpool, taping, pulsed ultra sound, and static quadriceps drill exercise).
3. Intervention to restore range of motion deficits: therapeutic exercise progression, joint mobilization/ manual therapy.
4. Therapeutic exercise to restore muscular strength and aerobic fitness.
5. Functional strengthening exercise to return to previous level of function and participate in usual sports routine.
6. Outcomes: After 7 weeks of rehabilitation patient get improved with following outcomes:

Outcome	ICF category	Changes at D/C
Pain	Body structure function	2/10 with strenuous activity
Effusion	Body structure function	Absent
Active knee flexion	Body structure function	0-140
Active knee extension	Body structure function	0
Passive knee flexion	Body structure function	0-140
Passive knee extension	Body structure function	0
Manual Muscle test for	Body structure function	5/5

knee

extension

/ flexion

McMurray Health condition ,  
's test disease, injury negative

Joint line Body structure  
tenderness function negative  
s test

Apley's Health condition ,  
compression test disease, injury negative

Ambulation Activity limitation Normal  
gait  
without  
cane

squatting Activity limitation No  
difficulty

Walking a mile Activity limitation No  
difficulty



Going up or down 10 stairs	Activity limitation	No difficulty
Standing one hour	Activity limitation	No difficulty
Running over even ground	Activity limitation	No difficulty
Usual sports activity	participation- involvement	No difficulty
Ability to attend social meetings	participation- involvement	Participati ng with no difficulty
Ability to cook at home kitchen	participation- involvement	Participati ng with no difficulty
LEFS SCALE	activity	Changes at D/C 20 points

improvement

to be

76/80

After 7 weeks of successful rehabilitation, patient was able to participate in routine sports activities and her daily living with no need to more medical or physical therapy assistance.