

Evaluator: _____ Cat: _____ Date: _____



MI-CAT(V) scoring sheet

Montreal Instrument for Cat Arthritis Testing, for Veterinarian use

Assessment Criteria

Degree of Alteration

1. Body Posture

	Normal	Mild	Severe/Obvious
A) Hindlimb placement	0	1	3
B) Forelimb flexion	0	1	3
C) Hindlimb flexion	0	1	3
D) Hindlimb weight bearing	0	1	3

2. Gait

A) Moves slowly with short uneven strides	0	1	3
B) Forelimb stiffness	0	1	3
C) Hindlimb stiffness	0	1	3
D) Forelimb range of motion	0	1	3
E) Hindlimb range of motion	0	1	3
F) Lateral spine movement	0	1	3

3. Obstacles

A) Overhead obstacle at elbow height of cat	(no attempt)				
Speed	0 (run)	1 (fast walk)	2 (slow walk)	3 (crawl)	4
Willingness	0 (immediate)	1 (1-2s pause)	2 (2-5s pause)	3 (>5s pause)	4
Scrape loudness	0 (no sound)	1 (slight scrape)	2 (moderate scrape)	3 (loud scrape)	4

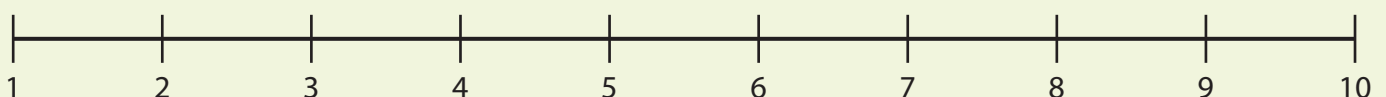
[Assess when cat is chasing a highly desired object (e.g. treat) when the overhead obstacle]

B) Jumping from raised obstacle	(barely perceptible)	(perceptible)	(loud)	(no attempt)
Front feet land heavily	0	1	3	4
Hind feet land heavily	0	1	3	4

4. Global distance exam

No mobility
impairment

Worst possible mobility

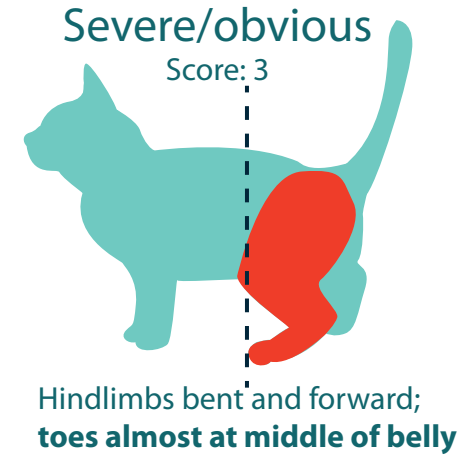
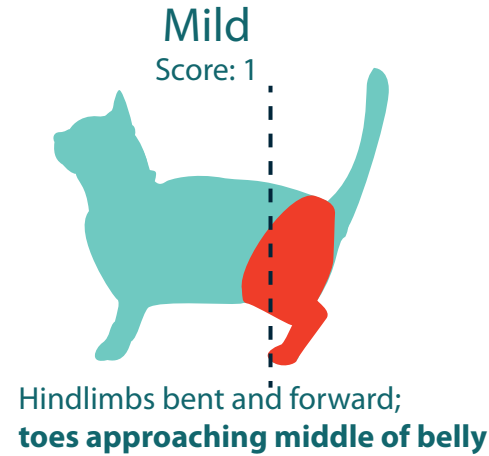
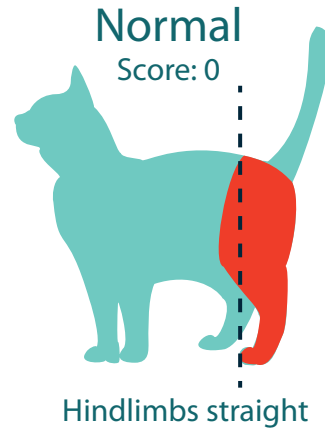


MI-CAT(V) total score = sum of all items

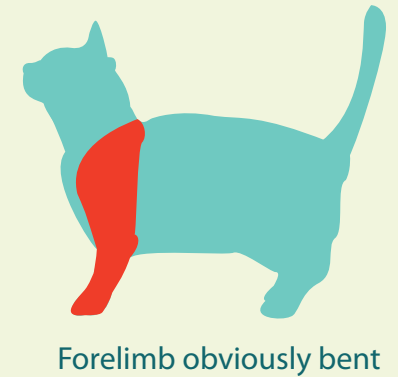
1. Body Posture

Observe when cat standing still. DO NOT assess when cat moving or rubbing itself against objects or evaluators, playing or any other behaviours that may affect scoring. If one side (left or right) seems differently affected, score the more severely affected side.

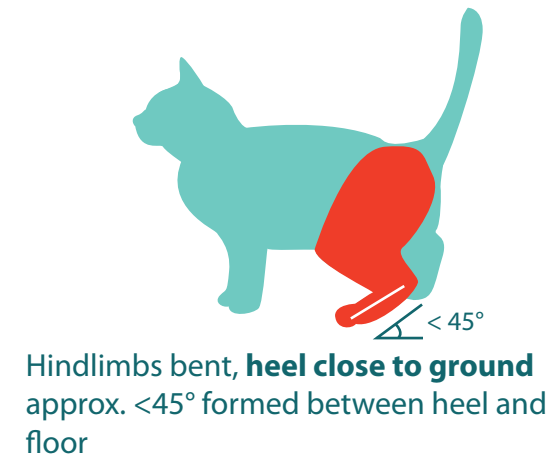
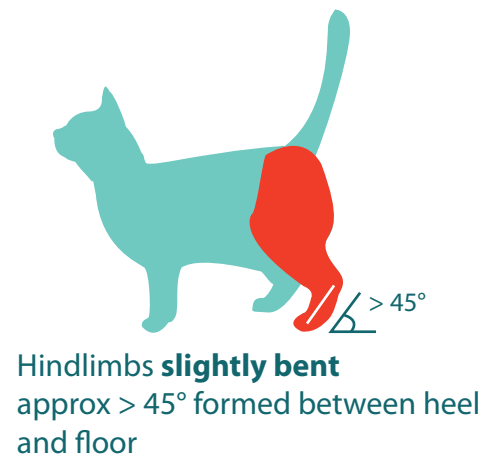
1A) Hindlimb placement



1B) Forelimb flexion



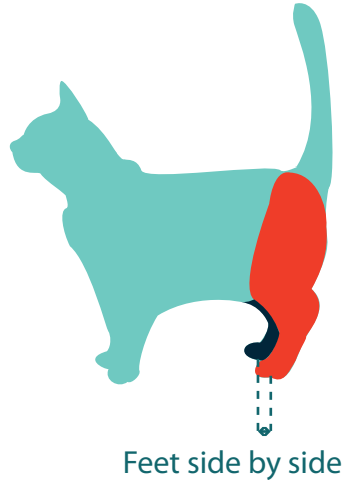
1C) Hindlimb flexion



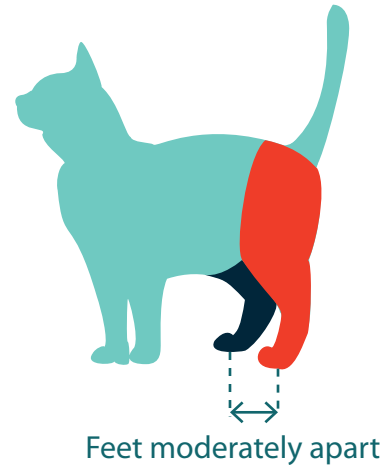
1. Body Posture

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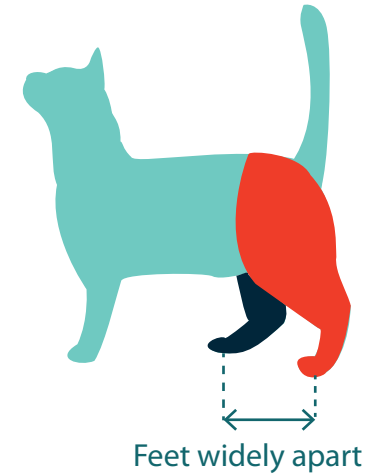
Normal
Score: 0



Mild
Score: 1

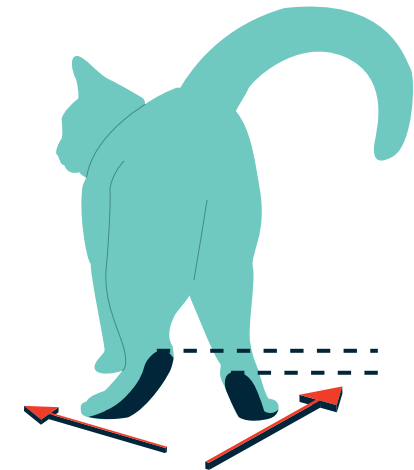
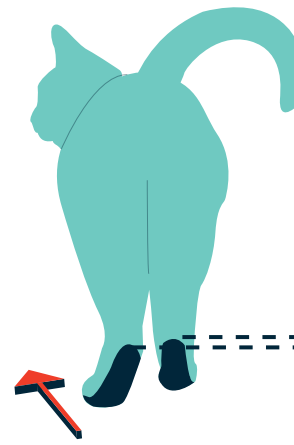
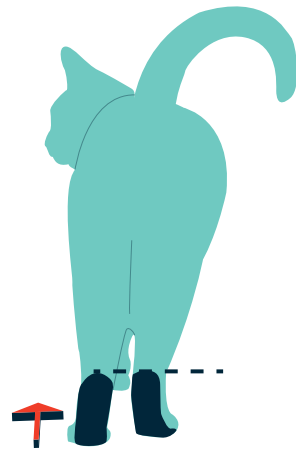


Severe/obvious
Score: 3



1D) Hindlimb weight bearing

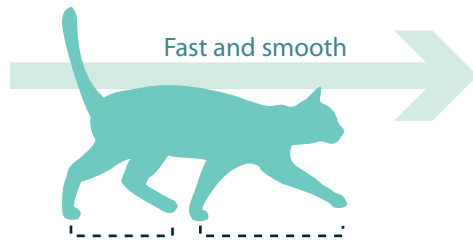
-observe if body weight is evenly distributed on both hindfeet



2. Gait

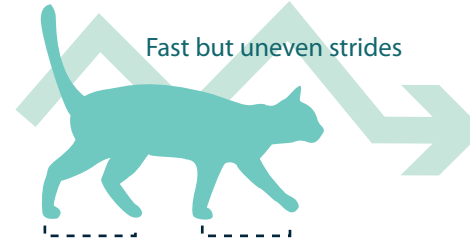
Observe when cat is walking. DO NOT assess when cat is running (except for 2A), rubbing itself against objects or evaluators, playing or any other behaviours that may affect scoring. If one side (left or right) seems differently affected, score the more severely affected side.

Normal
Score: 0



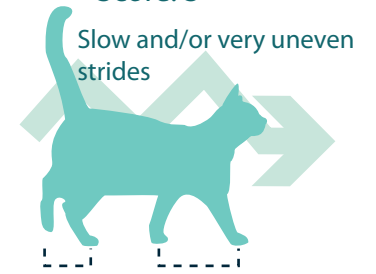
Cat runs or trots **quickly** with **long smooth strides**; **high motivation** to move

Mild
Score: 1



Cat runs or trots **quickly** with **short uneven strides**; **high motivation** to move

Severe/obvious
Score: 3

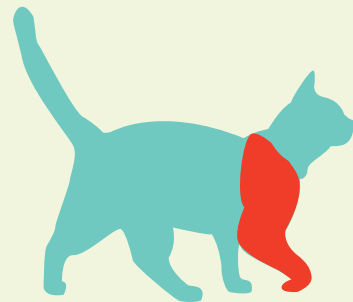


Cat walks **slowly or clumsily**; **low motivation** to move

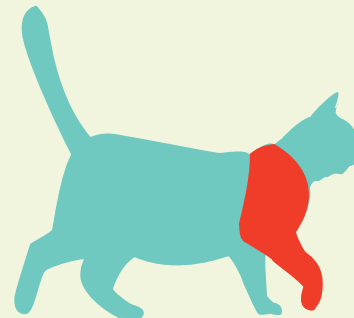
2A) Moves slowly with short uneven strides

-assess speed, quality of movement and overall willingness to move in general or chase desired object (e.g. treats)

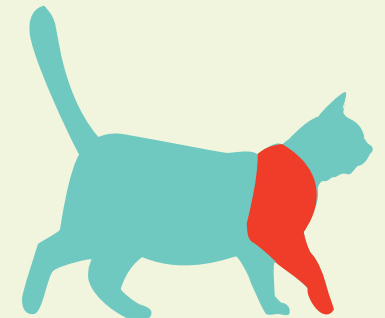
2B) Forelimb stiffness



Forelimb muscles contract to lift paw and **metacarpal bends easily**

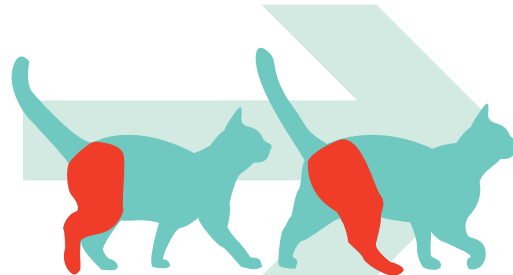


Forelimb muscles contract to lift paw and **metacarpal bends slightly**



Forelimb muscles barely contract when lifting paw and **metacarpal barely bends**

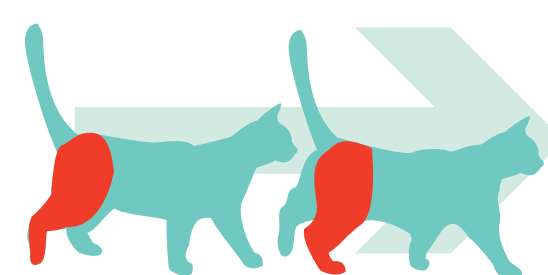
2C) Hindlimb stiffness



Hindlimb stretches forward when taking a step; **movement appears fluid**



Hindlimb stretches forward slightly when taking a step; **movement appears slightly stiff**



Angle between tibia and metatarsus stays unchanged; **cat appears to be waddling and movement is very stiff**

2. Gait

Observe when cat is walking. DO NOT assess when cat is running (except for 2A), rubbing itself against objects or evaluators, playing or any other behaviours that may affect scoring. If one side (left or right) seems differently affected, score the more severely affected side.

2D) Forelimb range of motion

Normal
Score: 0



Forelimb stretches as far as possible
Wide distance between forepaws

Mild
Score: 1



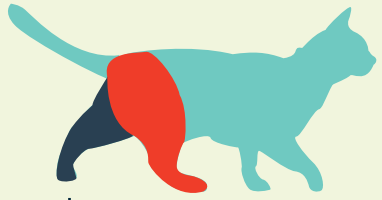
Forelimb can stretch further
Smaller steps taken

Severe/obvious
Score: 3



Forelimb barely stretches forward
Small steps taken

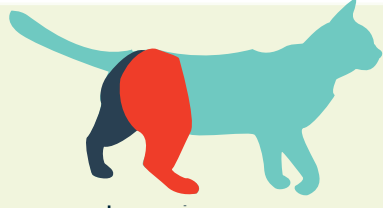
2E) Hindlimb range of motion



Wide distance between hindpaws



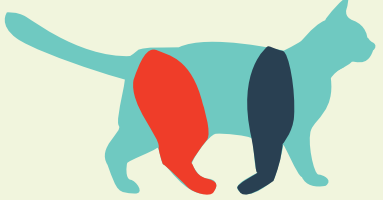
Wide distance between hindpaws



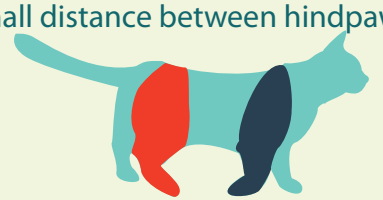
Small steps taken
Small distance between hindpaws



Very small or no gap between hind- and forepaw, **hindpaw almost steps into place of forepaw**



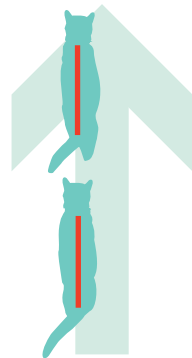
Small noticeable gap between hind- and forepaw, **hindpaw does not step into place of forepaw**



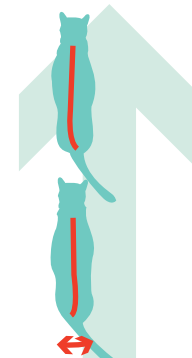
Wide and very noticeable gap between hind- and forepaw, **hindpaw steps a large distance from where forepaw was**

2F) Lateral spine movement

-assess from behind while cat in motion



Spine remains **rigid**



Hips **sways slightly**

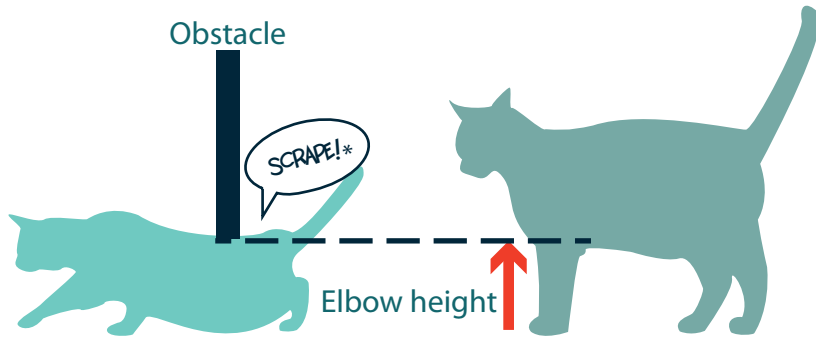


Hip **sways very obviously**

3. Obstacles

Encourage cat to pass under overhead obstacle (cat's elbow height) and jump from table height (approx. 76 cm)
DO NOT physically push or pull cat by leash or collar or startle it. Use of treats or food is recommended.

3A) Difficulty passing under obstacle



Speed:

Willingness:

Scrape loudness*:

Score 0

Score 1

Score 2

Score 3

Run

Fast walk

Slow walk

Crawl

Immediate

1-2s pause

2-5s pause

>5s pause

No sound

Slight

Moderate

Loud

Right after throwing treat under overhead obstacle:

Speed = pace used to chase after treat

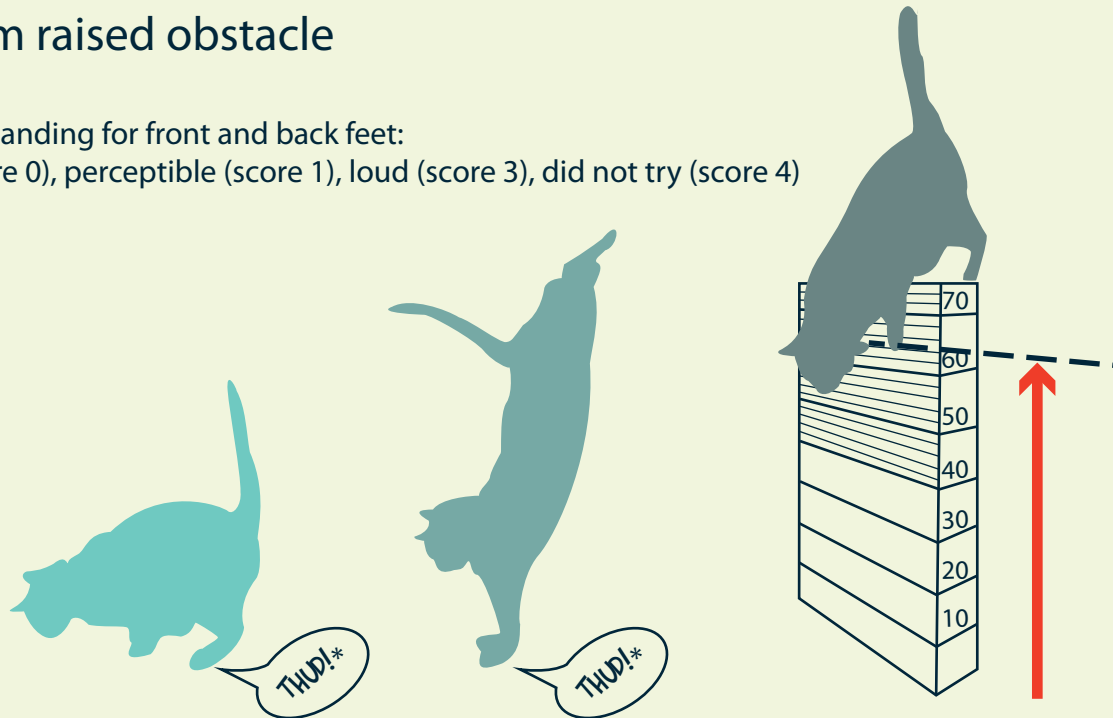
Willingness = reaction time to chase after treat and go under obstacle

Scrape loudness = sound of cat's back scrratching against obstacle as it goes under

Give score of 4 to each item if cat refuses to attempt

3B) Jumping from raised obstacle

*Assess loudness of landing for front and back feet:
not perceptible (score 0), perceptible (score 1), loud (score 3), did not try (score 4)



Measure height of cat's paw from ground right before jump**

**Recording and reviewing video footage (slow-motion feature) from a smart phone may be helpful.