

Crohn's Disease Activity Index (CDAI) and Patient Reported Outcome (PRO2)

The Crohn's disease activity index (CDAI) is a numerical measure of disease activity based on eight weighted variables: number of liquid stools, abdominal pain rating, general well-being, extraintestinal symptoms, need for antidiarrheal drugs, presence of abdominal masses, hematocrit, and body weight. The CDAI has long served as an outcome measure in clinical trials. Scores range from 0 to 600, with higher scores signaling greater CD activity.

Crohn's Disease Activity Index (CDAI)

Variable	Day							7 Day Total	Weighting Factor	Total
	1	2	3	4	5	6	7			
1. Number of liquid or very soft stools									x2=	
2. Abdominal pain rating 0=none, 1=mild, 2=moderate, 3=severe									x5=	
3. General well-being 0=generally well, 1=slightly under par, 2=poor, 3=very poor, 4=terrible									x7=	
4. Number of 6 listed categories patient now has (underline the specific items)									Check all that apply	
a. Arthritis/arthralgia										
b. Iritis/uveitis										
c. Erythema nodosum, pyoderma gangrenosum, aphthous stomatitis										
d. Anal fissure, fistula, or abscess										
e. Other fistula										
f. Fever over 100°F (37.8°C) during past 7 days										
									Total number of checked boxes=	
									x20=	
5. Taking Lomotil/opiates for diarrhea									No=0, Yes=1	
									x30=	
6. Abdominal mass									None=0, Questionable=2, Definite=5	
									x10=	
7. Hematocrit (% , rounded to whole)									If male, 47-_____ =	
									If female, 42-_____ =	
									If negative, enter 0	
									x6=	
8. Body weight calculation									Percentage deviation from standard weight x1=	
									CDAI Total=	

CDAI Score	CD Activity
<150	Remission
150-219	Mild
220-450	Moderate
>450	Severe

Crohn's Disease Activity Index (CDAI) and Patient Reported Outcome (PRO2) (cont.)

The CDAI was adapted to derive Patient Reported Outcome 2 (PRO2), which assesses average weekly abdominal pain and liquid stool frequency using the same CDAI weighting factors, as seen in the following table:

Calculation of Patient Reported Outcome 2 (PRO2)

Variable	Description	Scoring	Multiplier
Number of liquid stools	Average of 7 days		x2
Abdominal pain	Average of 7 days	0 = none 1 = mild 2 = moderate 3 = severe	x5

PRO2 Score	CD Activity
<8	Remission
8-13	Mild
14-34	Moderate
>34	Severe

References

Best WR, Beckett JM, Singleton JW, et al. Development of a Crohn's Disease Activity Index: National Cooperative Crohn's Disease Study. *Gastroenterology*. 1976;70(3):439-444.
 Khanna R, Zou G, D'Haens G, et al. A retrospective analysis: the development of patient reported outcome measures for the assessment of Crohn's disease activity. *Ailment Pharmacol Ther*. 2015;41:77-86.