

## National Institutes of Health (NIH) Activity and Chronicity Indexes— NIH Activity Index (NIH-AI) and NIH Chronicity Index (NIH-CI)

The National Institutes of Health (NIH) Activity and Chronicity Indexes are commonly used to evaluate kidney biopsies and assess lupus nephritis (LN) disease severity.

The NIH Activity Index (NIH-AI) quantifies specific histologic features indicative of active inflammation, including cellular proliferation, fibrinoid necrosis, cellular crescents, hyaline thrombi, leukocyte infiltration, and mononuclear-cell infiltration.

The NIH Chronicity Index (NIH-CI), on the other hand, quantifies features of permanent kidney damage, such as glomerular sclerosis, fibrous crescents, interstitial fibrosis, and tubular atrophy.

	Abnormality	Range	Multiplier	Score
Activity Index	<b>Glomerular Abnormalities</b>			
	Cellular proliferation	0-3		
	Fibrinoid necrosis/karyorrhexis	0-3	x2	
	Cellular crescents	0-3	x2	
	Hyaline thrombi/wire loops	0-3		
	Leukocyte infiltration	0-3		
	<b>Tubulointerstitial Abnormalities</b>			
	Mononuclear-cell infiltration	0-3		
<b>NIH-AI Total Score</b>				_____ / 24
Chronicity Index	<b>Glomerular Abnormalities</b>			
	Glomerular sclerosis	0-3		
	Fibrous crescents	0-3		
	<b>Tubulointerstitial Abnormalities</b>			
	Interstitial fibrosis	0-3		
	Tubular atrophy	0-3		
	<b>NIH-CI Total Score</b>			

Adapted from Austin HA, et al.

### Score Interpretation

NIH-AI	Implication
≤10	Low/moderate LN activity
>10	High LN activity

NIH-CI	Implication
0	Absence of LN chronicity
≥1	Presence of LN chronicity

### References

Mina R, Abulaban K, Klein-Gitelman M, et al. Validation of the lupus nephritis clinical indices in childhood-onset systemic lupus erythematosus. *Arthritis Care Res.* 2016;68(2):195-202.  
Austin HA, Muenz LR, Joyce KM, et al. Prognostic factors in lupus nephritis: contribution of renal histologic data. *Am J Med.* 1983;75:382-391.