

COS CREATIVES

Inbound Lead Generation Agency • Madurai

CORE WEB VITALS

The Complete Optimization Playbook

A basic-to-advanced checklist for better rankings, faster pages, and more leads — for both new and existing websites

www.coscreatives.in | Madurai, Tamil Nadu

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1. What Are Core Web Vitals (and Why Should You Care)?

Core Web Vitals are Google's official set of user-experience metrics that measure how fast, stable, and responsive a website feels to a real visitor. They were introduced by Google's Chrome team as part of the broader Web Vitals initiative, and today they are one of the clearest, most measurable signals of site quality that Google surfaces across PageSpeed Insights, Search Console, and Chrome itself.

For a business owner, marketer, or founder, the technical detail matters less than the outcome: Core Web Vitals directly influence how long a visitor stays on your page, whether they trust your brand, and whether they convert into a lead or customer. A slow, janky website doesn't just rank lower — it quietly leaks the traffic and leads you're already paying (in time, content, or ad spend) to attract.

"If your website isn't ranking despite good content, page experience is one of the first places to look — not just keywords."

The Three Core Web Vitals

Google currently tracks three stable Core Web Vitals, each representing a different facet of user experience — loading, interactivity, and visual stability:

Metric	Measures	Good Score	Needs Improvement	Poor
LCP (Largest Contentful Paint)	Loading speed	$\leq 2.5s$	2.5s – 4.0s	$> 4.0s$
INP (Interaction to Next Paint)	Responsiveness	$\leq 200ms$	200ms – 500ms	$> 500ms$
CLS (Cumulative Layout Shift)	Visual stability	≤ 0.1	0.1 – 0.25	> 0.25

Google evaluates these at the 75th percentile of page loads, segmented across mobile and desktop. In simple terms: at least 3 out of 4 of your visitors need a good experience for a page to officially "pass" Core Web Vitals.

Why This Matters for Organic Lead Generation

- **Rankings:** Page experience is a confirmed Google ranking factor. Two sites with similar content quality can rank differently based on Core Web Vitals performance.
- **Bounce rate:** Every extra second of load time increases the chance a visitor leaves before your offer, form, or CTA ever loads.
- **Trust and credibility:** A fast, stable site signals professionalism — critical for service businesses and B2B lead generation where trust precedes conversion.
- **Ad efficiency:** If you run paid campaigns alongside SEO, poor Core Web Vitals quietly increase your cost per lead because more paid clicks bounce before converting.
- **Mobile experience:** The majority of Indian search traffic is mobile-first. Core Web Vitals are especially punishing on average mobile devices and networks.

In short: Core Web Vitals sit at the intersection of SEO and conversion rate optimization. Fixing them is one of the few technical projects that improves both visibility and lead generation at the same time.

2. How to Measure Core Web Vitals

Before optimizing anything, you need a reliable baseline. Google recommends combining field data (how real users actually experienced your site) with lab data (controlled tests you run yourself).

Field Tools (Real User Data)

- Google Search Console → Core Web Vitals report — shows URL groups by status (Good / Needs Improvement / Poor), pulled from real Chrome users.
- PageSpeed Insights (pagespeed.web.dev) — shows both field data (Chrome UX Report) and a lab test for any public URL.
- Chrome UX Report (CrUX) — the underlying anonymized dataset Google uses; useful for comparing your site against competitors.

Lab Tools (Controlled Testing)

- Lighthouse (built into Chrome DevTools) — simulates a page load and scores LCP and CLS; uses Total Blocking Time as a stand-in for INP since lab tests have no real user input.
- Chrome DevTools Performance panel — for deep diagnosis of long tasks, render-blocking resources, and layout shift culprits.
- web-vitals JavaScript library — the same open-source library Google's own tools use; ideal for sending real Core Web Vitals data to your own analytics.

A Simple Monthly Measurement Routine

- ☐ Pull the Core Web Vitals report in Search Console and note any URL groups flagged "Poor" or "Needs Improvement."
- ☐ Run your homepage, top 3 landing pages, and blog template through PageSpeed Insights (mobile + desktop).
- ☐ Record LCP, INP, and CLS scores in a simple tracker so you can see trends over time, not just a single snapshot.
- ☐ Cross-check any "Poor" page in DevTools Performance panel to identify the specific cause before making changes.

3. Basic Checklist — For a New Website (Pre-Launch)

If you're building a new website, this is the cheapest time to get Core Web Vitals right — far cheaper than fixing it after launch. Bake these into your build process from day one.

3.1 Foundations & Hosting

- ☐ Choose quality hosting or a CDN-backed platform — server response time (TTFB) sets the ceiling for every other metric.
- ☐ Enable a CDN so HTML, images, CSS, and JS are served from servers geographically close to your visitors (especially important if you're targeting pan-India or global audiences from a Madurai-based server).
- ☐ Use HTTP/2 or HTTP/3 so the browser can load multiple resources in parallel.
- ☐ Turn on server-side caching for static pages so repeat visits (and crawler visits) don't hit your database every time.

3.2 Images & Media (LCP + CLS)

- ☐ Compress every image before upload (WebP or AVIF format wherever possible).
- ☐ Add explicit width and height attributes (or CSS aspect-ratio) to every image and embed — this alone prevents the majority of layout shift issues.
- ☐ Identify your homepage's likely LCP element (usually the hero image or heading) and make sure it loads directly from the HTML — not injected via JavaScript.
- ☐ Avoid lazy-loading the hero/above-the-fold image; reserve lazy-loading for below-the-fold images only.
- ☐ Use responsive images (srcset/sizes) so mobile visitors aren't downloading desktop-sized files.

3.3 Code & Fonts

- ☐ Minify CSS and JavaScript as part of your build process.
- ☐ Load web fonts efficiently — use font-display: swap and preload critical fonts to avoid invisible-text flashes and shift.
- ☐ Keep third-party scripts (chat widgets, marketing pixels, popups) to the essential minimum — each one adds to load time and interaction delay.
- ☐ Avoid render-blocking CSS/JS in the <head> for anything not needed to paint the first screen.

3.4 Layout & UX Stability

- ☐ Reserve fixed space for ads, embeds, cookie banners, and dynamically injected content so they don't push page content around.
- ☐ Avoid inserting new content above existing content after the page has loaded.
- ☐ Test your design on a mid-range Android phone on a throttled 4G connection, not just your office Wi-Fi and laptop.

3.5 Pre-Launch Validation

- ☐ Run PageSpeed Insights on the homepage, one blog/article template, and one lead-capture/landing page before going live.
- ☐ Confirm all three Core Web Vitals are in the "Good" range on mobile, not just desktop.
- ☐ Set up the web-vitals library or Search Console monitoring from day one so you catch regressions early.

4. Intermediate Checklist — For an Existing Website

If your site is already live and ranking below where it should be, the priority is diagnosis first, then targeted fixes — not a full rebuild. Work through these in order.

4.1 Diagnose Before You Fix

- ☐ Pull the Search Console Core Web Vitals report and list every URL group marked Poor or Needs Improvement.
- ☐ Identify which specific metric is failing on each page group — LCP, INP, or CLS require completely different fixes.
- ☐ Check whether the problem is worse on mobile, desktop, or both.
- ☐ Use the DevTools Performance panel or the Lighthouse report to find the actual bottleneck (a specific image, script, or layout shift), not just the score.

4.2 Fixing LCP Issues

- ☐ Confirm the LCP element's image source is visible in the raw HTML (not injected by JavaScript or hidden behind data-src).
- ☐ Add `fetchpriority="high"` to the LCP image and remove any `loading="lazy"` attribute on it.
- ☐ Move to server-side rendering (or pre-rendering) for key landing pages if they currently rely on client-side rendering.
- ☐ Audit and reduce Time to First Byte — check hosting performance, database query speed, and caching configuration.
- ☐ Defer or delay non-critical scripts and stylesheets so they don't compete with the LCP resource for bandwidth.

4.3 Fixing CLS Issues

- ☐ Find and fix every image or ad slot without explicit dimensions using Chrome DevTools' layout shift regions.
- ☐ Reserve space for cookie banners, sticky headers, and promotional bars so they don't shift content when they appear.
- ☐ Replace animations on top, left, margin, or width with transform-based animations (translate/scale), which don't trigger layout shifts.
- ☐ Check embedded ads, forms, and third-party widgets for unpredictable sizing and add container min-height where needed.

4.4 Fixing INP / Responsiveness Issues

- ☐ Audit third-party scripts (chat tools, heatmaps, ad tags, marketing pixels) and remove or defer anything not essential.
- ☐ Break up long-running JavaScript tasks so the browser can respond to clicks and taps sooner.
- ☐ Reduce JavaScript bundle size using code splitting so pages don't parse unused code on load.
- ☐ Audit and clean up your tag manager — old, unused tags quietly add JavaScript weight over time.

4.5 Ongoing Hygiene

- ☐ Re-test Core Web Vitals after every major redesign, plugin update, or new marketing tag installation.
- ☐ Set a quarterly Core Web Vitals audit as a standing task, not a one-time fix.
- ☐ Track Core Web Vitals alongside organic traffic and lead form conversion rate to prove the business impact of each fix.

5. Advanced Optimization Checklist

Once the basics are handled, these advanced techniques squeeze out the remaining gains — most relevant for content-heavy sites, growing SaaS/service sites, and businesses running significant paid or organic traffic.

5.1 Advanced LCP

- ☐ Implement back/forward cache (bfcache) eligibility — avoid no-store headers and unload event listeners so returning visitors get near-instant reloads.
- ☐ Explore the Speculation Rules API to prerender high-probability next pages (e.g., from homepage to your services or contact page).
- ☐ Move dynamic logic to edge/CDN functions where possible to cut Time to First Byte further.
- ☐ Preload critical LCP resources referenced only in CSS or JS using `<link rel="preload">`.

5.2 Advanced INP

- ☐ Use the Scheduler API (`scheduler.yield()`) to yield control back to the browser during heavy JavaScript execution.
- ☐ Use Chrome DevTools' Coverage tool to find and eliminate unused JavaScript and CSS shipped on every page load.
- ☐ Apply CSS containment (content-visibility) to isolate and lazily render complex off-screen sections such as long blog archives or dashboards.
- ☐ Keep DOM size lean — very large DOM trees slow down every layout recalculation, which directly hurts responsiveness.

5.3 Advanced CLS

- ☐ Audit all animated CSS properties site-wide and eliminate layout-inducing properties (top, left, margin, width, height, border) in favor of transform.
- ☐ Use the Not Restored Reasons API or DevTools bfcache tester to identify and fix every reason pages fail bfcache eligibility.
- ☐ Set aspect-ratio on all dynamic embeds (maps, videos, social embeds) rather than relying on fixed pixel heights.

5.4 Process & Reporting (Advanced Maturity)

- ☐ Instrument real-user monitoring (RUM) using the web-vitals library, sent to your analytics platform, rather than relying only on CrUX's 28-day rolling average.
- ☐ Add Core Web Vitals budgets to your CI/CD pipeline so a regression is caught before it reaches production, not after Search Console flags it weeks later.
- ☐ Segment Core Web Vitals data by landing page template, device type, and traffic source to prioritize fixes where they impact the most leads.
- ☐ Tie Core Web Vitals reporting to business KPIs — form starts, form completions, and cost per lead — so technical work stays connected to revenue.

6. Turning Core Web Vitals Into Leads, Not Just Scores

A perfect PageSpeed score is not the goal — more qualified organic leads at a lower cost is. Use this lens once your technical checklist is complete:

Speed Builds the Trust That Conversion Needs

Visitors decide whether to trust a business within seconds. A page that loads instantly and doesn't jump around while they read signals competence before you've said a single word about your service.

Every Fixed Second Is a Cheaper Lead

If you're also running Google or Meta ads toward the same landing pages, Core Web Vitals improvements reduce wasted ad spend from bounced clicks — effectively lowering your cost per lead without changing your bidding strategy at all.

Organic Rankings Compound Over Time

Unlike ads, a page-experience improvement keeps paying off every month it stays live. This is the foundation of organic lead generation: rank well, load fast, keep visitors on the page long enough to see your offer, and convert them without paying per click.

"SEO for startups isn't only about keywords and backlinks — page experience is often the fastest, cheapest lever available, because it's already within your control."

7. Need a Hand Implementing This?

This checklist is designed so any founder, marketer, or in-house developer can work through it independently. But if you'd rather have a specialist audit your site, prioritize the highest-impact fixes, and connect the work directly to lead generation, that's exactly what we do.

About COS Creatives

COS Creatives is an inbound lead generation agency based in Madurai, helping startups and growing businesses get found organically, rank without over-relying on ads, and turn website visitors into qualified leads. Our work spans SEO for startups, Core Web Vitals and technical performance audits, content-led organic lead generation, and conversion-focused website design.

Ready to find out why your website isn't ranking the way it should?

Reach out to COS Creatives for a free Core Web Vitals and SEO health check for your website.

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