PRACTICE RESOURCE · BOOK COMMENTARY

Why Checklists Work

Lessons from The Checklist Manifesto for the digital dental practice

Prepared by **Eric True**

A commentary on Atul Gawande, *The Checklist Manifesto: How to Get Things Right* (Metropolitan Books, 2009).

The problem is follow-through

Most remakes do not happen because someone did not know what to do. They happen because one small, familiar step got skipped on a busy day: the shade was taken after the teeth dried out, the top cord was not pulled, or the bite scan stopped short. Every person on the team knew better. The step was simply missed.

Atul Gawande, a surgeon and writer, builds a whole book around that problem. His argument is that in complex work the biggest gap is no longer knowledge but follow-through: applying what we already know, correctly, every single time. His proposed fix is modest on purpose. It is a short checklist, used at the right moment, by a team that is willing to use it.

> People have told me for years that attention to detail is what sets our lab work apart. After reading this book, I see it differently. You train attention to detail first, but you do not leave it to chance. You support it with a checklist, every case, so the simple things are never the reason a restoration fails.
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What the book argues

Complexity outruns memory.
Modern clinical work involves more steps, materials, and handoffs than any one person can reliably hold in mind, no matter how experienced.

Routine steps are the ones that slip.
Under time pressure, attention goes to the urgent problem in front of us. The familiar steps are the ones we skip, or talk ourselves out of because they have never caused trouble before.

More training alone is not the answer.
Gawande notes that training in most professions is already long and demanding, yet avoidable failures persist. Skill needs a simple backstop.

Checklists work best with teamwork.
The lists that succeed combine a few task checks with communication checks, and they give every team member permission to pause the work.

The evidence behind the idea

Gawande's case rests on fields where a short list changed outcomes. The two medical examples below are published studies; the figures come from the original papers.

Aviation

The book retells how a 1930s test-flight crash of an advanced new bomber was blamed on pilot error. Instead of demanding more training, test pilots wrote a short checklist of routine steps, and, as Gawande tells it, the aircraft went on to fly an enormous number of miles without an accident.

Gawande, ch. 2

Intensive care

A program built around a five-step checklist for placing central lines was rolled out across 103 Michigan ICUs (the Keystone project). The median infection rate fell from 2.7 per 1,000 catheter-days to 0 within three months, and the mean rate fell from 7.7 to 1.4 by 16–18 months.

Pronovost et al., NEJM 2006

Surgery

The WHO Surgical Safety Checklist (19 items at three pause points) was tested in eight hospitals in eight countries. Major complications fell from 11.0% to 7.0% (about 36%) and deaths from 1.5% to 0.8% (about 47%).

Haynes et al., NEJM 2009

36%
fewer major surgical complications
(11.0% → 7.0%)

47%
fewer surgical deaths
(1.5% → 0.8%)

WHO Surgical Safety Checklist pilot, eight hospitals; Haynes et al., NEJM 2009.

What makes a checklist good

The book draws heavily on how aviation builds its checklists. Paraphrased, the design rules look like this:

Pick the pause point.

Decide exactly when the team stops to run the list, at a natural break in the work.

Choose the type.

DO-CONFIRM: do the work from training, then stop and confirm nothing was missed. **READ-DO:** read each step and do it, like a recipe, for less familiar situations.

Keep it short.

The book suggests roughly five to nine items per pause point, limited to the steps that are most dangerous to skip and most often missed (Gawande calls them "killer items").

Keep it fast.

A pause point should take about a minute. If it drags, the list will be abandoned.

Make it readable.

Plain words, one page, clean layout, easy-to-read type.

Test and revise.

First drafts never survive real use unchanged. Try it, watch where it fails, and refine it.

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Putting it to work in a digital practice

A digital crown appointment is a chain of small, all-or-nothing steps. Miss one and the scan, the design, and the lab's time can all be wasted. That makes it a natural fit for the two checklist types.

Normal case DO-CONFIRM

The team works from training and the **Normal Case Workflow,** then confirms at three pause points with the **True-Fit Case Checklist**.

Remake case READ-DO

Less familiar and higher stakes. Work through the **Remake Case Workflow** step by step, and use the **Remake Scan Quick Reference** card to choose the right scan.

Three pause points in a crown appointment

The True-Fit Case Checklist is a DO-CONFIRM list. Each check takes well under a minute.

CHECK	WHEN	WHAT THE TEAM CONFIRMS
Check 1: Preprep	Before prepping	Shade taken? Preop scan taken?
Check 2: Prescan	Before the final scan	Prep reduction, margins, undercuts; contacts parallel, broad, smooth; occlusal clearance measured; cord double-packed, CDC, top cord pulled.
Check 3: Postscan	Before the case is sent	Scan reviewed for margins, contacts, occlusion; temporary fit; Rx complete.

Give the whole team a voice

The checklists that worked in the book did more than list tasks. They changed who was allowed to speak up.

- Name one person, often the assistant, to call each pause point. It works best when the doctor asks for it rather than tolerates it.
- Make it clear that anyone may pause the case if a check is not done. Saying so out loud is a check in itself.
- Read the items aloud. In the WHO work, the point was confirmation by the team, not paperwork.

Where the killer items come from

Eric's starting list of items worth checking in digital restorations: contact shape, the occlusion check, and the details on posterior crowns and pontics. Your own remakes will tell you which items belong on your list.

Companion resources

True-Fit Case Checklist
Chart pad and chairside card.

Normal Case Workflow
The workflow behind it.

Remake Case Workflow
Plus the Remake Scan Quick Reference.

Helpful Hints for Digital Restorations
Prep design.

How to Take a Great Digital Impression
Contacts, CDC, scanning.

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How to start in your office

1. **Start with one case type.** Single posterior crowns are a good first target: frequent, routine, and easy to measure.
2. **Use the Case Checklist for a month.** Keep the laminated card chairside or a pad sheet in the chart.
3. **Train, reinforce, then check.** Eric's sequence: teach the workflow, reinforce it with a short quiz or huddle review, and then let the checklist hold it in place.
4. **Close the loop on every remake.** Review the remake, agree on the solution, and if a step was missed, ask whether it belongs on the checklist.
5. **Revise and date it.** Trim items the team never misses, add the ones that keep causing problems, and mark the revision date.

When the team pushes back

Checklists can feel beneath an experienced clinician. Gawande admits he expected little from his own surgical checklist, then found it repeatedly caught problems in his routine cases. A good list does not replace judgment. It clears the routine steps out of the way so attention is free for the hard parts.

Introduce the list as a tool to try, not a mandate. During the WHO rollout, the organizers worried that forcing holdouts would sour everyone else, so hospital leaders presented the checklist as something to try in hopes of better results.

Gawande describes professionalism as resting on selflessness, skill, and trustworthiness, and notes that aviation adds a fourth: discipline in following sound procedure and working with others. Discipline is the one a checklist helps with most.

> For us, the motive is simple care for the people we serve. Treat others the way you want to be treated, one case and one patient at a time.

Want help setting up checklists in your office?

Call Eric at **951-430-9888** or email **truefitlab@gmail.com**.

Sources

1. Atul Gawande, *The Checklist Manifesto: How to Get Things Right* (Metropolitan Books, 2009)
2. Haynes AB, Weiser TG, Berry WR, et al. A surgical safety checklist to reduce morbidity and mortality in a global population. *N Engl J Med* 2009;360:491–499.
3. Pronovost P, Needham D, Berenholtz S, et al. An intervention to decrease catheter-related bloodstream infections in the ICU. *N Engl J Med* 2006;355:2725–2732.

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