



Mastering Tire Maintenance

Rediscovering how we understand
our tires and tire care

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Introduction

i Typically, how often do you drive a car?



In the US, bad tires cause more than 11,000 vehicle accidents every single year, resulting in more than 600 fatalities.¹ Many of these accidents can be linked to faulty tires that were subject to manufacturer recalls, but the majority were caused by a lack of proper tire maintenance by vehicle owners. The simple fact is that properly maintaining tires saves lives.

Despite rapid advances in automotive innovation over recent years, the component that keeps our cars and trucks on the road is still a piece of vulcanized rubber that hasn't changed all that much in the last century. Tires are manufactured with the same markings, codes, and specifications as they have been for decades. **The tire industry is characterized by outmoded tire service procedures, a lack of technological advancement, and an absence**

of basic knowledge of tire maintenance in the general population. The dearth of readily available information makes it hard for drivers to understand their tires and learn how to take good care of them, even though they are critically important to the safety and performance of their vehicles.

To better understand what people know about their tires and essential tire maintenance practices, Anyline carried out a consumer-focused research study of American drivers. The goal of this survey was to uncover the truth about what matters to them, how they maintain their vehicle tires, including when to change them, and how they decide which tire is right for their vehicle when it comes time to purchase new tires.

¹ <https://www.nhtsa.gov/es/tires/safety-and-savings-ride-your-tires>

Methodology

The data used for this report is based on an online survey by YouGov, an internationally recognized market research platform, in which 1041 people in the USA took part between November 16th and 22nd, 2022. All genders, ages, geographic locations, and income levels have been represented. Every respondent owns or leases at least one vehicle, individually or jointly.

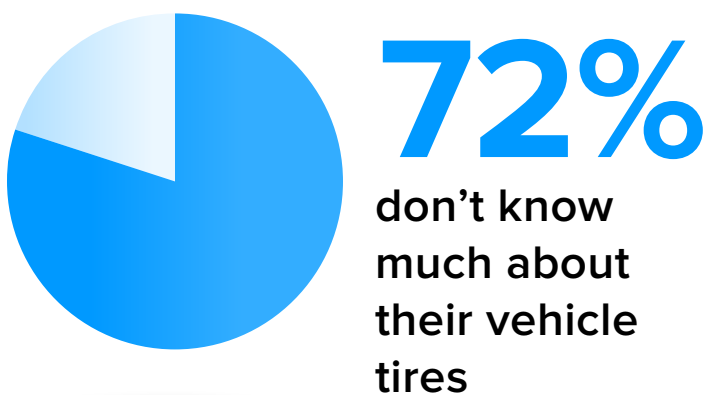
Unless otherwise noted, the results, which were compiled from all respondents, represent the entire audience who was surveyed.

Key Takeaways

1. Study Finds Shockingly High Levels of Tire Ignorance Among American Drivers: Over Two-Thirds Lack Knowledge and Nearly Half Have Driven on Bald or Worn Tires

The majority of US drivers (72%) don't know much about their vehicle tires. They are aware of the fundamentals, such as how to check tire pressure (77%), measure tread depth (64%), and identify sidewall damage (56%), but many rely on professionals (or family members) to alert them when it's time to change their tires (39%).

This lack of knowledge contributes to 47% of Americans knowingly admitting to driving on bald or severely worn-out tires, with an additional 46% having experienced a tire blowout while driving.



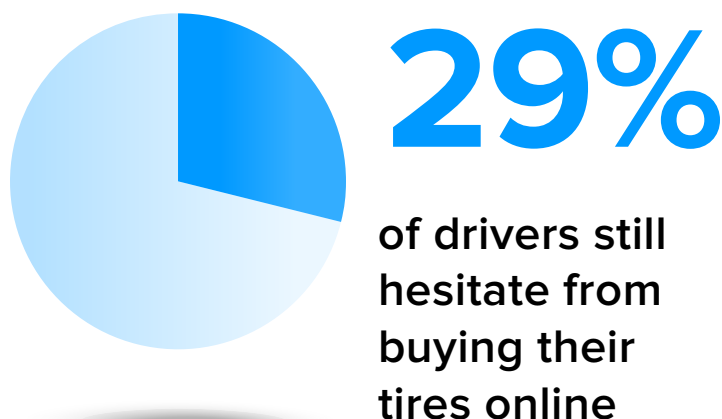
2. Over Half of American Drivers Neglect to Check Tire Wear: Survey Reveals Lack of Compliance with Legal Limits for Road Safety

Only 42% of respondents check if the tread depth is still above the minimum recommended depth of 2/32 inches (1.6mm) at least once a month. However, they are still using primitive and inaccurate methods to check for tire tread depth.

3. The discrepancy in Car Tire Replacement: Drivers Vary in Knowledge, Timing, and Prioritization of Replacing Worn Tires

While increased from 10% in 2017 to 29% today, American drivers still hesitate from buying their tires online. This is due to the many pain points that occur during in-store purchases, including being bothered by up-selling salespeople (37%), waiting too long in the store to get new tires (37%), unsure of what they were buying (30%) and having to travel too far from home (25%).

Consumers would consider buying tires online, according to the survey, if they had more information about the purchase or assurance that they were selecting the best tires (43%, which combines the 16% and 27% in the stat below).



Key Takeaways

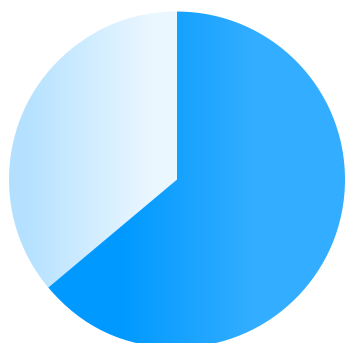


43%

**cited Instant
Access to
Information as
Key Factor**

4. Price and Information Drive Demand for Online Tire Sales Among American Drivers: Survey Reveals 30% Cited Price as Key Factor and 43% Cited Instant Access to Information

According to the survey, consumers would think about purchasing tires online if they had more knowledge about the tires they were purchasing and the confidence that they were picking the best tires (43%). The secondary driving factor for an online purchase is access to exclusive pricing, saving them money (30%)



64%

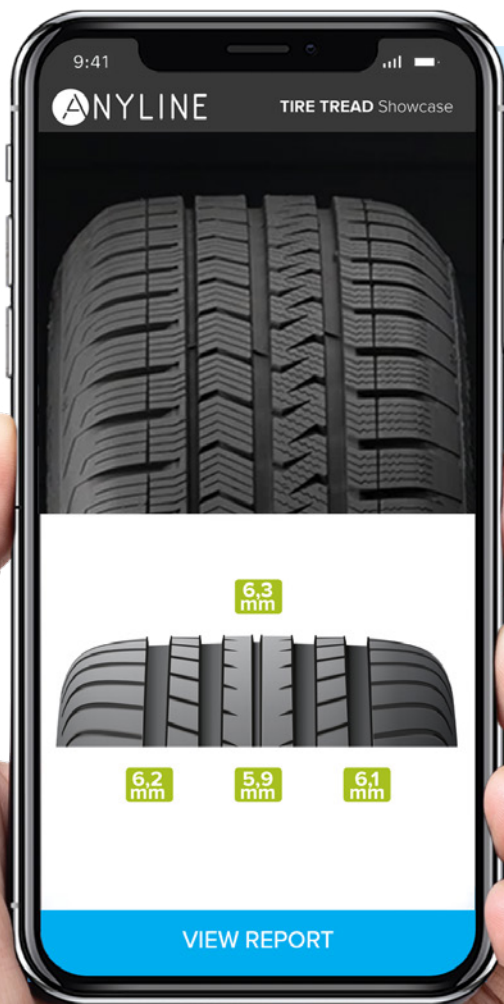
**of drivers say
the biggest
indicator is the
worn tire tread
itself**

5. Urgent Need for Modern Tire Service Maintenance Tools: Lack of Real-Time Information from Mechanics Highlights Need for Mobile Scanning

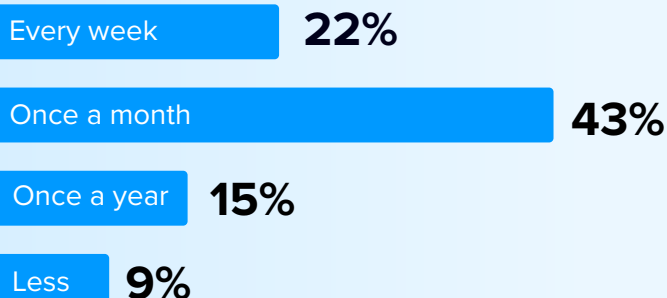
This survey clearly illustrates the need for a modern approach to tire maintenance and servicing. 64% of American drivers say the biggest indicator that it's time to buy a new set of tires is the worn tire tread itself, but by that point, tires might already be considered problematic and dangerous.

Additionally, many respondents rely on their mechanic (39%) or their spouses, friends and family (28%) to tell them to change their tires. More worryingly, 34% decide to get new tires due to visible sidewall damage or after experiencing performance issues (33%).

Making Tire Maintenance Easy



i How often do you check your tires?



Maintaining Tire Safety on the Road

Our 2023 survey of American drivers and their knowledge of tire servicing practices has revealed a significant gap in understanding and a lack of education and resources when it comes to tire data, maintenance, and replacement.

This ignorance ultimately results in the neglect of tire maintenance, which may reduce vehicle performance, impact safety, and necessitate expensive repairs and replacements.

In our survey of American drivers, we found that while 46% drive their vehicles five or more days a week, 24% of drivers only check the status of their tires once a year or less. While it is encouraging that 65% of respondents check their tires as frequently as once a month, that doesn't guarantee that they are checking correctly or looking at all available information.

i What are Americans checking on their tires?



77%

Tire pressure

64%

Worn tread

56%

Sidewall damage

According to the findings in our survey, when American drivers inspect their tires, they are mainly concerned with tire pressure and worn tread, at 77% and 64%, respectively.

These are both positive numbers given the impact they can have on vehicle performance and safety. For instance, handling, fuel efficiency, and overall tire performance are all significantly influenced by tire pressure. Likewise, it is encouraging that a sizable majority of motorists are aware of the necessity of inspecting tires for worn tread, as this can adversely affect traction and road safety. Whether or not they are accurately inspecting the tread on their tires is still a topic of concern, which will be addressed later on in this report.

Additional tire inspection survey results report that 56% of drivers are checking for visible sidewall damage during their inspections, a concerning figure given that sidewall damage can be a sign of more serious issues, leading to unexpected tire failure.


To put context on this specific point, **46% of our participants have experienced a tire blowout while driving, a situation that puts not only themselves and their passengers in danger but also all other drivers around them on the road!**

The results of the survey show that, while American drivers have a fundamental understanding of tire maintenance, there is still room for improvement in terms of their knowledge of the full range of tire-related issues that can affect performance and safety.

What does improved tire knowledge and understanding look like in practice? It can mean automotive and tire specialists sharing more general tire safety information with drivers, including how often they should take a look at their tires and how to understand each specific aspect of tire maintenance (pressure, tread wear, and sidewall damages). It can also be more proactive communication, such as sending drivers alerts through customer apps, for example when it is time for a routine check or replacement.

46% of our participants have experienced a tire blowout while driving.





i How do you know its time for new tires?

64%

By looking at the tread online

When a mechanic points it to you **39%**

Sidewall damage **34%**

Performance issues **33%**

Advice from others **28%**

Lost pressure **27%**

The Importance of Timely Tire Replacement

How American drivers approached tire buying or replacement was a key focus of our survey. The findings clearly show that American drivers have several different ways of identifying when it is time for tire replacement.

The majority of respondents (64%) chose an examination of the tire tread, which is encouraging to see because it shows that drivers are aware of the value of maintaining adequate tread depth for performance and safety. 39% of respondents said that they rely on a mechanic to point out when it is time to replace their tires, which suggests that they may not be as knowledgeable about tire maintenance but trust the mechanic's expertise.

A further 34% of those surveyed said they change their tires when the sidewall is visibly damaged, which is concerning given the likelihood of tire failure when the sidewall is visibly damaged. We found that 28% of respondents said they replace their tires when told to do so by a family member or friend, regardless of their level of knowledge, which is also a worrying finding.

When it's clear to drivers that they do need new tires, the next step is, of course, to purchase them. And while the traditional way to buy tires is to drive to the nearest tire store or leave the responsibility of finding the right tire to your mechanic, we have new information that may suggest an alternative is a golden ticket to success.



How would you rate your buying experience?

37%

are bothered by up-selling salespeople

37%

waited too long to get new tires

30%

didn't really know what they were buying

25%

had to travel far from home to get their new set of tires

When asked about buying new tires from physical tire retail locations, American drivers shared that they have had mixed experiences. According to 37% of respondents, aggressive salespeople are reason alone not to buy in-store. An additional 37% of respondents also reported waiting too long to get new tires, which could indicate

that some stores have long wait times, slow processes, or limited availability of certain tires. According to 30% of respondents, they weren't sure what they were buying, further suggesting that some drivers might not be fully aware of the various tire options and their advantages.

Upgrading Your Tires

While some American drivers may have a positive experience purchasing tires from brick-and-mortar stores, others face serious challenges that have a direct impact on whether they change tires in a timely manner, regardless of whether they know it is time to do so or not.

These results inevitably lead us to ask, “What about purchasing tires online?” Could this be the answer to people’s ambivalence toward traditional brick-and-mortar retail locations, making them less likely to replace their tires on schedule? Purchasing tires online might look like an easy alternative to stressful in-store shopping situations, but upon further inspection, buying tires online has yet to catch on the way that buying books, clothes, or other goods online has.

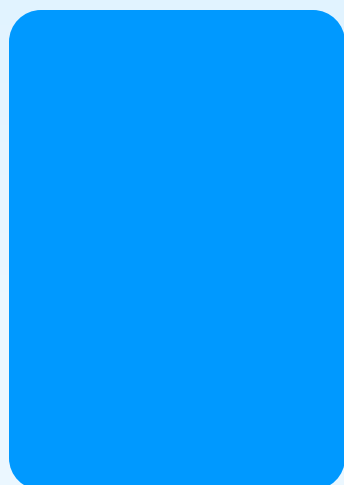
According to the survey results, we have identified a number of crucial areas where retailers can improve the experience of buying tires online. 30% of those who responded were drawn to having access to better offers

and prices, suggesting that drivers are actively looking for ways to reduce the cost of their tire purchases. A further 27% of respondents said that if the online shop could guarantee that they were making the right choice, it would make the experience more attractive, telling us that drivers want to be sure that they are getting the best tire for their vehicle.

Our findings suggest that retailers should prioritize offering a foolproof method of obtaining precise tire information, as well as the benefits of the tires available, to encourage customers to buy the right tires online.

60%

Access to better deals - price saving



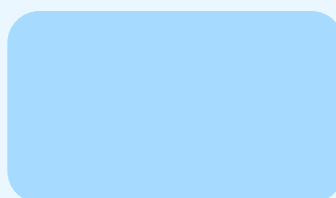
27%

Finding out more information about tires I am considering



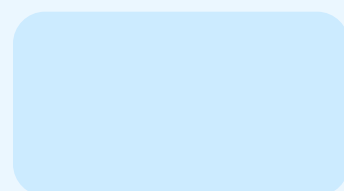
16%

If making the right choice could be guaranteed



15%

Time saving





A New Approach to Age-Old Issues

How Technology is Getting Customers Involved

Our findings have made it clear that giving drivers access to information and data-based resources is essential when talking about proper tire maintenance and replacement. For the 55% of survey respondents who are already knowledgeable about tires, having access to current and reliable information about their tires will help them to make wise decisions. For the other 35% of those who responded, who are less knowledgeable about tires, having access to transparent information about their tires will make them more likely to trust what their mechanic is telling them and encourage them to be more proactive in getting their tires serviced before a serious incident occurs.

Up until now, it hasn't been possible to access reliable tire information easily and transparently, but the application of AI and computer vision

technology to the tire industry now offers a solution. **With mobile scanning, everyone with a smartphone can access the information they need to manage their tire condition, recognize when new tires are needed, and make the best decision when shopping for a new set of tires.**

This new technology makes it possible to scan tires using a simple smartphone and have a quick and accurate overview of the complete tire condition in real time. Not only is this technology far superior to the traditional methods, but it can also help customers make quick and informed decisions when it comes to their tires, keeping potentially unsafe tires from leaving the garage.

Modern Tire Scanning Solutions



Read our recent press release on our Mobile Tire Tread Reader from the SEMA Auto Show.

[Click here.](#)

Watch our on-demand webinar showcasing this breakthrough technology, featuring Anyline CPO, Christian Plaichner.

[Click here.](#)

Reliable Tire Tread Data

Unfortunately, even though 64% of respondents admitted that they do check their tire tread, the majority of them are likely to believe that the conventional “penny test” or manual measurement methods are a reliable and accurate procedure. The unavoidable fact is that both of these approaches are stale, inconsistent, and incredibly subjective, which results in inaccurate information about tire condition and ultimately vehicles driving on the road with unsafe tires.

With AI technology, [tire tread depth](#) can now be quickly and accurately measured using a mobile phone. This allows drivers and mechanics to easily check the condition of their tires and instantly receive a notification when they need to be replaced, thus improving tire safety and performance on the road. This technology can also be used to keep track of the tire’s wear over time, which can help predict when the tire needs to be replaced. The data gathered from large numbers of tires can be applied to better manage fleets of vehicles and ensure that tires are replaced or retreaded at the optimal time.

In general, **using AI technology for tire tread depth measurement offers a more precise, effective, and practical way to check the tire condition** and, as a result, gives customers the information they need to make informed and data-based decisions about tire servicing and replacement.



Reliable Tire Age and Recall Management

Drivers who aren't knowledgeable about tires are also disadvantaged in tire maintenance because they must physically visit a mechanic or tire servicing facility to obtain a tire's age and other specific manufacturing information.

Utilizing a smartphone and modern data capture technology, it is simple to collect the required information by reading the DOT number on the sidewall of the tire.

The data can be accurately digitized and automatically entered into digital databases, allowing drivers and mechanics to quickly and easily check the age and manufacturing information of their tires. This is especially important when tires are recalled by manufacturers and for identifying tires when

seasonal changes are handled by tire service providers or tire dealers. Furthermore, the technology's capability to track tire performance and warranty data can be useful for fleet management.

Read more about how Discount Tire is using this solution in over 1,100 store locations across the USA.

[Click here.](#)

Reliable Tire Purchasing Information

From the survey results, we've seen that many American drivers would prefer online tire purchasing over traditional brick-and-mortar stores. Drivers certainly want to avoid the pressure and inconvenience of traditional stores, according to the 37% of respondents who said they were bothered by salespeople trying to upsell them and that they had to wait too long to get new tires. Additionally, the fact that 30% of respondents reported not knowing what they were buying suggests that drivers may prefer the convenience of being able to research and compare tire options online. This emphasizes the need for retailers to offer an online purchasing

solution that takes these issues into account and provides a quicker, more transparent purchasing process.

That is where mobile data capture comes into play with tire size scanning. With scanning integrated into tire eCommerce stores, **shoppers can quickly and confidently scan their tires during the purchase process to help ensure their new tires are the same specification.**

This takes the guesswork out of the equation when buying tires online and provides the solution many consumers are looking for.

37%

of respondents were bothered by salespeople

37%

of respondents had to wait too long to get new tires

30%

of respondents didn't know what they were buying

See how Autoplus integrated a mobile tire size scanner into their mobile tire purchasing website to increase customer engagement.

[Click here.](#)

About ANYLINE

Founded in Vienna in 2013, Anyline has established itself as a global leader in mobile data capture and data insights. Using the latest, most innovative artificial intelligence and machine learning approaches, Anyline gives businesses the power to read, measure, and interpret visual information with any mobile device.

Anyline's AI-enabled, machine learning technology seamlessly connects the physical with the digital world, capturing critical data in real time. This enables Anyline customers to unlock a wealth of instantaneous insights, embrace datafication, and use data to drive critical business decisions.

Anyline helps businesses move away from costly, tedious manual processes and instead makes them easy, fast, and convenient for everyone, from the end user to the front-line worker. Anyline's mobile data capture technology is CCPA/GDPR compliant, ensuring that all data collected is processed and stored securely. Anyline is trusted by leading Fortune 500 companies and household brands such as PepsiCo, Discount Tire, and IBM, as well as national governments and the United Nations.

For more information, visit www.anyline.com.

Report details

The results in this report are from an online survey that was fielded from 16.-22. November 2022. There were 1,041 respondents to the survey.

The responses presented in this report were weighted to be representative of the overall population by the following variables:

- Gender: Male (48%) & Female (52%)
- Region: South (38%), West (24%), Midwest (19%) and Northeast (19%)
- Age groups: 65+ (29%), 45-64 (26%), 30-44 (22%), 18-29 (22%)
- Annual income: 0-29.999USD (19%), 30.000-49.999USD (18%), 50.000-69.999USD (14%), 70.000-99.999USD (18%), 100.000USD and more (22%).
- Marital status: Married (59%), Never been married (21%), Divorced (9%), Widowed (6%), in a domestic partnership (4%) or separated (2%)
- Highest level of education: No diploma (5%), High school graduates (26%), College without graduation (22%), College graduate (22%), Post-graduates (13%), 2-year degree (12%).